

THE PHILIPPINE JOURNAL OF SCIENCE

D. GENERAL BIOLOGY, ETHNOLOGY,
AND ANTHROPOLOGY

VOL. XII

SEPTEMBER, 1917

No. 5

BRACHYMELES, A GENUS OF PHILIPPINE LIZARDS

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ONE PLATE AND SEVEN TEXT FIGURES

The genus *Brachymeles*, as here understood, is the same as defined by Boulenger;¹ that is, it includes the genera *Brachymeles* Dumeril and Bibron and *Senira* Gray. At first glance the three large pentadactyl species—*B. schadenbergi*, *gracilis*, and *bicolor*—appear to be very different from the diminutive *bonitæ* with stumplike limbs; however, the marked similarity of the upper head scales and the fact that these species form a more or less continuous series warrant placing them in one genus. The recent discovery of two species intermediate between *bicolor* and *bonitæ* makes the relationship of the species appear more obvious.

Taking *Brachymeles schadenbergi* as the most specialized form of the genus, since in this species the leg development seems greatest (that is, the length of the hind leg is contained in the axilla to groin distance 3.25 times,² while in *B. gracilis* the average is 3.6 times),³ it is seen that the relative length of the body (axilla to groin distance) increases and the length and the development of the limbs decrease proportionally in each species of the series. Thus in *B. bicolor* the hind leg is contained in the axilla to groin distance 7 times; in *eleræ*, 9.6 times; in *bonitæ* and *burksi*, more than 25 times.

¹ Cat. Liz. Brit. Mus. (1887), 3, 386.

² Average of 20 specimens.

³ Average of 27 specimens.

In the two species first mentioned, which are very closely related, the legs are used more or less; in *bicolor* the legs are for the most part kept folded close to the body and are probably of no great consequence in locomotion; however, the limbs are still pentadactyl. In *eleræ* the limbs are still further reduced and one of the digits on each hand and foot is wanting; in this species the legs are probably of no use in locomotion. In *bonitæ* and *burksi* the legs are reduced to small stumplike rudiments and are scarcely more than 2 millimeters long in the largest specimens.

In this paper I have redescribed the species of the genus from large series of specimens. The characters assigned to *B. gracilis* and to *B. schadenbergi* by Boulenger⁴ are not constant, and specimens of one species can be found that agree with both descriptions. Of the two new species here described, *B. eleræ* is well differentiated by having only four digits; *B. burksi* stands in the same relation to *B. bonitæ* as *B. schadenbergi* does to *B. gracilis*.

Key to the species of Brachymeles.

- a¹. Limbs pentadactyl.
 - b¹. Length of hind leg contained three to four times in the distance between axilla and groin.
 - c¹. Second pair of chin shields broader than first and separated by one scale *gracilis* Fischer.
 - c². First pair of chin shields broader than second pair, the latter separated by two or three scales..... *schadenbergi* Fischer.
 - b². Length of hind leg contained about seven times in distance from axilla to groin. First pair of chin shields broadest; second pair separated by two or more scales. Limbs pentadactyl..... *bicolor* Gray.
- a². Limbs tetradactyl. Length of hind limb contained nine to ten times in distance from axilla to groin; second pair of chin shields broadest, separated by one scale..... *eleræ* sp. nov.
- a³. Limbs stumplike. Limbs contained in axilla to groin distance twenty-five or more times.
 - d¹. Second pair of chin shields broadest, separated by a single scale.
 - *burksi* sp. nov.
 - d². First pair of chin shields broadest; second pair separated by three scales *bonitæ* Dumeril and Bibron.

***Brachymeles schadenbergi* Fischer. Plate I, fig. 1.**

Senira bicolor, part., GRAY, Cat. Liz. Brit. Mus. (1845), 98.

Eumeces (Riopa) schadenbergi FISCHER, Jahrb. Wiss. Anst. Hamb. (1885), 11, 87, Pl. III, fig. 2.

Brachymeles schadenbergii BOULENGER, Cat. Liz. Brit. Mus. (1887), 3, 386.

⁴ Boulenger, op. cit., 386.

Description of species.—Rostral large, longer than wide, pointed behind, in contact with the frontonasal in 7 specimens, separated in 13; supranasals present, either in contact or separated; frontonasal usually broader than wide; prefrontals constantly separated, leaving frontal narrowly in contact with frontonasal; frontal large, longer than broad or equal, constantly in contact with two supra-oculars; frontoparietals usually in contact (two specimens show exception), as broad as long or a little broader; interparietal large, longer than broad, with a whitish eyespot; parietals not forming a suture behind interparietal (one exception); no nuchals; nostril pierced in a small nasal, which is followed by a small postnasal; two frenals, first much higher than wide; second lower than first and nearly square; two small preocular scales; five supra-oculars, the second widest; six superciliaries; six or seven upper labials, the fourth entering the orbit (two specimens have the fifth), first largest; four subequal scales at the posterior corner and below the eye; temporal scales slightly enlarged; mental large, somewhat rectangular; five to seven, usually six, lower labials; an undivided postmental wider than deep; first pair of chin shields wider than second pair, in contact or not (10 specimens touch, 10 do not); rostral, mental, first upper and lower labials, nasals, postnasals, and internasals all apparently thickened and lighter in color than body; eye small, its diameter one half its distance from snout; distance from eye to auricular opening greater than from eye to nostril; auricular opening present, small, about halfway between end of snout and insertion of forearm; forearm pressed forward fails to reach auricular opening in large specimens, but does so in some smaller specimens; foreleg followed by a lateral depression into which it is usually folded; distance from tip of snout to insertion of arm from 2 to 2.6 times (average, 2.3) in distance from axilla to groin; length of hind leg contained in this distance from 3 to 4 (average, 3.25). Limbs pentadactyl; with unicarinate lamellæ; six lamellæ under longest finger, eight under longest toe; third and fourth toes practically equal, sometimes the fourth slightly longer, sometimes the third; preanal scales slightly enlarged; 26 to 28 rows of scales about the body (17 specimens, 28 rows; 3 specimens, 26 rows); scales of posterior part of body frequently, dimly tricarinate; tail 1.1 times the length of body.

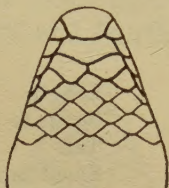


FIG. 1. *Brachymeles schadenbergi*
Fischer, chin
shields. $\times 2$.

Color in life.—Above brown, each scale with a darker brown area, covering eight scale rows; laterally and ventrally brownish yellow with some lateral scales flecked with the darker brown of the dorsal area; scales of belly of some specimens flecked with brown; scales on the ventral part of tail usually dark brown; head and upper labials usually dark brown, scales on the end of snout lighter.

Measurements of Brachymeles schadenbergi Fischer.

	Largest specimen. mm.	Average of 8 nearly equal-sized specimens. mm.
Length	220	206
Snout to vent	112	99
Tail	* 108	106
Snout to foreleg	31	29
Axilla to groin	71	64
Foreleg	13	12.5
Hind leg	20	19

* Tip missing.

Remarks.—This species is common in Mindanao. Most of the specimens examined are from Agusan River Valley. It is a burrowing form and is usually found under logs or trash. The females give birth to from two to five young.

The preceding description is based on a series of 20 specimens from Mindanao.

Brachymeles gracilis Fischer. Plate I, fig. 2.

Senira bicolor, part., GRAY, Cat. Liz. Brit. Mus. (1845), 98; GÜNTHER, Proc. Zool. Soc. London (1879), 76.

Eumeces (Riopa) gracilis FISCHER, Jahrb. Wiss. Anst. Hamb. (1885), 11, 85, Pl. III, fig. 1.

Brachymeles gracilis BOULENGER, Cat. Liz. Brit. Mus. (1887), 3, 387.

Description of species.—Rostral broader than high, visible above; supranasals present, in contact or not behind the rostral (8 specimens touch, 19 do not); frontonasal broader than deep; prefrontals broader than deep, never in contact with each other, laterally forming sutures with both frenals and first superciliary; frontal large, about as long as broad, in contact with the frontonasal and two supra-oculars; frontoparietals constantly in contact, about as broad as deep; parietals elongate, in contact or not behind the interparietal (14 specimens touch, 13 do not); interparietal about as long as broad with a distinct white eye-spot; nostril in a minute nasal followed by a postnasal; two frenals, first highest, second rather square; five or six superciliaries; five supra-oculars, second widest; six or seven upper labials,

fourth entering orbit; seven lower labials, mental little wider than deep, followed by an undivided postmental much wider than deep; first pair of chin shields in contact or not (19 specimens touch, 8 do not); second pair of chin shields broadest, separated by a single scale; temporals not or but slightly enlarged; pre-anals somewhat enlarged; foreleg short, with four unicarinate lamellæ under the longest finger; hind leg with third and fourth toes equal, eight lamellæ under each; a short depressed area along the body behind limbs; distance from eye to end of snout about equal to distance from eye to auricular opening; distance from snout to foreleg contained in distance from axilla to groin 2.1 to 2.6 times (average, 2.46); length of hind leg contained in axilla to groin distance 3 to 4.3 times (average, 3.6). The front leg fails to reach the ear by a considerable distance.

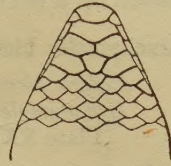


FIG. 2. *Brachymeles gracilis* Fischer, chin shields. $\times 2$.

Color in life.—The 10 or 12 upper rows of scales dark yellowish brown with darker spots, usually on the posterior part of each scale, forming, sometimes, rather distinct longitudinal lines; below usually dirty yellowish brown, each scale on ventral side of tail with a brownish spot; head blackish brown; sometimes scales on sides and belly have small dark spots. Scales smooth, in 24 to 28 rows.

Measurements of Brachymeles gracilis Fischer.

	mm.
Length	196
Tail	101
Axilla to groin	60
Snout to foreleg	26
Foreleg	9
Hind leg	15

Variation.—The young usually have narrow white stripes from behind the eyes to some distance on the tail, separated by six rows of scales. These frequently persist in half-grown specimens. One specimen from Canlaon Volcano, Negros, shows very marked variation from other specimens from the same locality. It has 30 rows of scales, the legs are better developed; the ear opening much larger and nearer the foreleg than the end of the snout; there is a broad white band on either side, the parietals are in contact; the fourth and fifth supralabials enter the orbit; the distance from snout to foreleg is contained twice in axilla to groin distance; the hind leg in the same distance, 2.7 times. It is probable that this specimen represents a distinct subspecies.

Remarks.—Females give birth to from four to six young at a time. Embryos taken from a female captured in Mindoro measured about 60 millimeters and were still surrounded by a large egg mass; the eyespot on the interparietal is prominent in the embryos.

This species is common in Negros and is especially common in Mindoro. I was unable to find it in Mindanao where it has been reported by J. G. Fischer.⁵ I surmise that the specimen reported by Fischer is *B. schadenbergi*. The preceding description is based on a series of 27 specimens from Negros and Mindoro.

Brachymeles bicolor Gray. Plate I, fig. 3.

Senira bicolor, part., GRAY, Cat. Liz. Brit. Mus. (1845), 98.

Brachymeles bicolor BOULENGER, Cat. Liz. Brit. Mus. (1887), 3, 388, Plate XXXI. CASTO DE ELERA, Fauna de Filipinas (1895), 422.

Description of species.—Rostral very much broader than deep, not touching the frontoparietal; internasals large, broadly in contact behind the rostral and forming their longest suture with the frontonasal; latter much broader than deep, in contact with one loreal and in contact with the frontal at a single point; prefrontals large, minutely separated, wider than deep; frontal

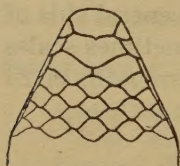


FIG. 3. *Brachymeles bicolor* Gray, chin shields. $\times 2$.

longer than wide, rather pointed in front, touching two supraoculars; two frontoparietals, a little wider than deep, broadly in contact behind frontal; two very elongate parietals, lying diagonally, nearly three times as long as wide, forming a suture behind interparietal; latter longer than broad; a pair of nuchals, narrow and elongate; a large, elongate temporal borders parietal; nasal extremely small, only a ring about nostril; a postnasal of nearly the same size; two large frenals, first higher than wide, higher than second; second frenal nearly square; a preocular directly in front of eye; five supra-oculars, second longest and arranged as in other members of the genus, two in contact with frontal; a few small scales below orbit above labials; six superciliaries; six upper labials, first largest, not touching internasal; fourth under eye, first four of nearly the same size; two or three scales in temporal region enlarged; six lower labials; mental broader than deep, rather rectangular; postmental single, wider than deep; first pair of chin shields in contact, wider than second pair; the latter small, separated by three scales (like the arrangement in *B. schadenbergi*). Ear opening greatly reduced and well poste-

⁵ Fischer, loc. cit.

rior to eye; 28 rows of scales around the body; anals not or scarcely enlarged. Legs small, five fingers and toes present, all clawed; lamellæ below digits feebly compressed and uncarinate, limbs rather broadened at base. Hind leg contained in the distance from axilla to groin 7.4 times.

Color in alcohol.—Above dark red-brown, covering ten scale rows; each scale with a darker brown spot, which is not readily discerned; head and upper parts of limbs brown; laterally and ventrally the color is yellowish to brownish white, distinctly contrasted with the color above.

Measurements of Brachymeles bicolor Gray.

	mm.
Length, tail broken and a partial regeneration begun	215
Snout to vent	155
Width of body	18
Width of head	14
Snout to ear	15
Snout to eye	6
Snout to foreleg	32
Axilla to groin	112
Foreleg	8
Hind leg	15

Remarks.—The specimen contained two embryos which were almost fully matured. They measure 90 and 86 millimeters, respectively; width of head, 6.5; snout to vent, 48; hind limb, 6. The head scales are identical with those of the mother, save that the interparietals are a little wider than deep; the nuchals are present in one specimen, in the other they are broken. I regard the presence of the nuchals as a normal characteristic, although the figure of the type does not show them. This species is apparently very rare. I have been unable to find it, and there is no specimen in the Bureau of Science collection. I am inclined to believe that it is an inhabitant of north-central and western Luzon, although I have been unable to find any definite localities recorded. It is the largest known species of the genus and is readily recognized by the elongate body.

Described from a specimen in the Santo Tomas Museum, Manila. It has no number. It is labeled "Filipinas."

Brachymeles eleræ sp. nov. Plate I, fig. 4.

Type.—Museum of Santo Tomas, unnumbered; the collector unknown; labeled "Filipinas."

Description of type.—Rostral but little wider than deep, bending backward somewhat over end of the snout, broadly in contact with frontonasal; internasals reduced, separated, in contact with



FIG. 4. *Brachymeles eleræ* sp. nov., type; chin shields. $\times 2$.

first labials; frontonasal nearly as long as broad, narrowly in contact with frontal; the latter longer than broad, produced to a point in front, in contact with two supra-oculars; frontoparietals quadrangular, moderate, separate; frontal touches interparietal, which is diamond-shaped; parietals elongate, three times as long as wide; nasal minute, a mere rim around nostril; two frenals, first higher than wide; second almost square; one large preocular; five supra-oculars, the second widest; six superciliaries; six labials above, first labial largest, the fourth entering orbit; one pair of nuchals; temporals somewhat enlarged, the largest bordering parietal; mental quadrangular, wider than deep; one postmental, wider than deep; first and second pairs of chin shields divided by a single, median, much-enlarged scale, second pair somewhat broader than first pair; third pair of chin shields divided by three scales. Limbs much reduced, each with four diminutive, clawed digits; ear opening wanting; two anals distinctly enlarged; eye rather small; 24 scale rows around anterior part of body; 22 about middle; length of hind leg in distance from axilla to groin about ten times.

Color in alcohol.—Very light yellowish brown above and on sides, each scale with a dark brown spot, which forms longitudinal dotted lines on each scale row; dots below smaller and not so distinct as above.

Measurements of Brachymeles eleræ sp. nov.

	Type. mm.	Cotype. mm.
Length	128	103
Snout to vent	68	63
Width of body	6	6
Width of head	5.1	5
Axilla to groin	51	44
Snout to foreleg	15	12
Foreleg	3.5	3.1
Hind leg	5.2	4.6
Scale rows	22-24	24-26

Variation.—A second specimen in Santo Tomas Museum is in the same container and is probably from the same locality. Its measurements are included in the preceding table.

The two specimens agree very well, save that in the cotype the scale dividing the first pair of chin shields is smaller and the



FIG. 5. *Brachymeles eleræ* sp. nov., cotype; chin shields. $\times 2$.

second pair is divided by only a single scale. This is probably the normal condition.

Remarks.—While no locality is given, I am assured by the Director of Santo Tomas Museum that the specimens are from Nueva Vizcaya. I take pleasure in naming the species for Father Casto de Elera in recognition of his contribution to Philippine zoölogy.

Superficially this species resembles *Lygosoma lineatum* Gray and thus the specimens were found labeled. In common with this species they have four digits on the limbs, and the coloring and the marking are strikingly similar, but here the resemblance ceases. It has no close affinities in the genus.

Brachymeles burksi sp. nov. Plate I, fig. 5.

Type.—No. 700, male, private collection; collected at Sumagui (Liddell Plantation), east coast of Mindoro; May 4, 1916; by E. H. Taylor.

Description of type.—General appearance rather wormlike; head bluntly pointed. Rostral large, visible above for nearly half its length, rather broadly in contact with the frontonasal; nostril in a minute nasal between first labial, supranasal, and rostral; supranasal in contact with largest frenal and first labial; these scales on point of snout thickened; frontonasal a little broader than long, narrowly in contact with frontal, which is slightly longer than broad and in contact with first and second supra-oculars; prefrontals rather rectangular, touching two frenals, first superciliary, and first supra-ocular; four supra-oculars, second widest, last smallest; four or five superciliaries; frontoparietals somewhat rectangular, little larger than prefrontals, touching two supra-oculars; interparietal a little longer than broad, narrowly in contact with the frontal; parietals more than twice as long as wide, in contact behind interparietal, touching two supra-oculars, two temporals, and an elongate nuchal; two frenals, a small preocular before eye; no postnasal; six upper labials, fourth entering orbit; six lower labials; mental moderate, thickened, wider than high; an unpaired postmental, followed by three pairs of chin shields none of which are in contact, second pair widest; two temporals between parietal and sixth labial; 24 scale rows; two distinctly enlarged preanals; eyes small; ear completely hidden; legs reduced to scaled stumplike rudiments with no indication of digits; length from snout to foreleg 4.5 times in distance between axilla and groin.



FIG. 6. *Brachymeles burksi* sp. nov., chin shields. $\times 2$.

Measurements of Brachymeles burksi sp. nov.

	mm.
Length, tail regenerated	103
Snout to anus	73.5
Axilla to groin	60
Snout to foreleg	13.5
Width of head	4.5
Width of body	5.4
Foreleg	1.1
Hind leg	1.3

Color in life.—Above and below dark (sometimes purplish) brown, each scale having a darker area with the edges somewhat lighter; end of snout grayish.

Remarks.—Several specimens of this species were taken on the eastern coast of Mindoro at Sumagui, on the Liddell Plantation; ten specimens were taken later at Calapan, on the northern coast. They were found burrowing under logs and in rotting wood. Very little variation is evident; most of the specimens have 22 instead of 24 scale rows; one specimen has only five upper labials, the third entering the orbit. The females give birth to two young. Embryos taken from one female measured 56 and 54 millimeters; they seem almost entirely developed.

This species is closely related to *Brachymeles bonitæ*, but differs from it in the following characters: The leg stumps are even more reduced, the prefrontals and frontoparietals are smaller, nuchals are present, the mental is much smaller, and the postmental is in contact with two instead of one labial, the second pair of divided chin shields are broader than the first pair and are separated by a single scale.

I take pleasure in naming this species for Mr. Clark Burks, who assisted in making collections in western Mindoro.

Brachymeles bonitæ Dumeril and Bibron. Plate I, fig. 6.

Brachymeles bonitæ DUMERIL and BIBRON, *Erp. Gén.* (1839), 5, 777; GRAY, *Cat. Liz. Brit. Mus.* (1845), 98; BOETTGER, *Bericht. ü. d. Senck. Nat. Gesel.* (1886), 103; BOULENGER, *Cat. Liz. Brit. Mus.* (1887), 3, 388.

Description.—Rostral large, triangular, about as high as wide; internasals present, large, separated; frontonasal large, a little wider than long, in contact laterally with a single frenal, forming sutures with rostral and frontal; prefrontals separated, in contact laterally with two frenals and first superciliary; frontal about as broad as long, in contact with two supra-oculars and narrowly with interparietal; frontoparietals rather large, separated;

parietals about three times as long as wide, forming a suture behind interparietal; nostril pierced in a minute nasal; no post-nasal; first labial in contact with internasal, two enlarged frenals; five supraciliaries, four supra-oculars, second widest; six supralabials, third and fourth entering orbit; temporals enlarged, nuchals slightly enlarged; mental large, followed by an enlarged postmental, which is in contact with a single lower labial; four pairs of divided chin shields, first largest and widest; fourth pair very small; ear hidden; limbs reduced to stumps with no digits; 26 rows of scales about body; eye small; scales on point of snout thickened; length of legs twenty-eight times in axilla to groin distance.



FIG. 7. *Brachymeles bonitæ*. Dumeril and Bibron, chin shields. $\times 2$.

Color in life.—Uniform purplish brown, lighter on throat and chin. Scales on snout lighter than other head scales.

Measurements of Brachymeles bonitæ Dumeril and Bibron.

	mm.
Length, tail regenerated	113
Length of head	9
Width of head	5.5
Axilla to groin	65
Foreleg	2.3
Hind leg	2.3
Snout to foreleg	13.5

Remarks.—This species stands much in the same relation to *B. burksi* as *B. schadenbergi* does to *B. gracilis*. The following differences are present: The mental is larger, the arrangement of the chin shields is essentially different, and the postmental is in contact with a single labial instead of with two as in *B. burksi*. Several other minor differences are evident on a comparison of the two species.

Described from No. 1151, private collection; Los Baños, Laguna, Luzon, on the side of Mount Maquiling, elevation about 100 meters; April 10, 1917; E. H. Taylor, collector.

NOTE: Since this paper has gone to press, two apparently new species of the genus *Brachymeles* have been discovered in the Sulu Archipelago. One is a pentadactyl form, the other has lost all external vestiges of limbs. They will be described in a forthcoming paper on Sulu reptiles.

ILLUSTRATIONS

[Photographs by Bureau of Science.]

PLATE I

- FIG. 1. *Brachymeles schadenbergi* Fischer.
2. *Brachymeles gracilis* Fischer.
3. *Brachymeles bicolor* Gray.
4. *Brachymeles eleræ* sp. nov.
5. *Brachymeles burksi* sp. nov.
6. *Brachymeles bonitæ* Dumeril and Bibron.

TEXT FIGURES

[Drawings by P. Moskaira.]

- FIG. 1. *Brachymeles schadenbergi* Fischer, chin shields. $\times 2$.
2. *Brachymeles gracilis* Fischer, chin shields. $\times 2$.
3. *Brachymeles bicolor* Gray, chin shields. $\times 2$.
4. *Brachymeles eleræ* sp. nov., type, chin shields. $\times 2$.
5. *Brachymeles eleræ* sp. nov., cotype, chin shields. $\times 2$.
6. *Brachymeles burksi* sp. nov., chin shields. $\times 2$.
7. *Brachymeles bonitæ* Dumeril and Bibron, chin shields. $\times 2$.



PLATE I. SIX SPECIES OF THE GENUS BRACHYMELES.

ICHNEUMONOID PARASITES OF THE PHILIPPINES, I

RHOGADINÆ (BRACONIDÆ), I

By C. F. BAKER

(*Los Baños, P. I.*)

In laying the foundations for work in economic entomology in the Philippine Islands, a comprehensive study of the hymenopterous parasites occurring in the Archipelago is of the highest importance. A bare beginning in this work has been made. Of the marvelously rich fauna in these groups but very few and scattering species have been made known to science; many of these are to be credited to the activities of two Jesuit priests, Fathers Brown and Stanton, whose field work was practically confined to the garden of the Manila Observatory. A few were obtained by Semper, the German lepidopterologist, and by other travelers.

Only two species of the subfamily Rhogadinæ have been described from the Philippines, but this subfamily is represented here by many interesting and some peculiar genera and by a very considerable number of species. It is entirely probable that the twenty-one species of thirteen genera described herein¹ are but a small fraction of those existing in the Islands, since they have been obtained at a few widely separated localities and as a result of merely desultory collecting. The Rhogadinæ are parasitic on various Coleoptera and Lepidoptera, and many of the species are of economic importance.

This subfamily may be defined as cyclostomatous braconids with margined occiput and sessile or subsessile or even subpetiolate abdomen, having wings with three cubital cells, head transverse and narrowed behind the eyes, usually one or more abdominal tergites with median carina, and the abdominal dorsum usually coarsely striate in large part. The degree of conation in the second abdominal suture is variable. The body is usually covered with rather long, sparse, white pubescence, this becoming shorter and thicker on the legs. The hind tibial spurs are of various types and furnish good classificatory char-

¹ Numerous species of the genus *Rhogas* will be described in a later paper.

acters. The pronotum is extended in widely variable degrees; its anterior outline is very various and is difficult to describe. The mesonotum varies from deeply trilobed to evenly convex, and the notauli from deeply impressed to subobsolete. The scutellar foveæ and the sculpturation of the metanotum and the abdominal tergites are good sources of diagnostic characters. In all Philippine species the lower angle of the metapleura is produced in a broad tooth above the hind coxal cavity, and the form of this tooth presents considerable variety. The eye is always emarginate within in the large-eyed forms, although the depth of emargination is variable. The nervellus in the hind wings is almost always oblique, although it varies from straight to curved or even to angularly bent at the middle; it is rarely vertical as in *Neorhyssalus*.

The following genera and species are described in this paper:

<i>Rhyssalus unicolor</i> Ashmead.	<i>Megarhogas szeptigetii</i> sp. nov.
<i>Rhyssalus ashmeadii</i> sp. nov.	<i>Trigonophatnus nigricornis</i> sp. nov.
<i>Neorhyssalus compositus</i> g. et sp. nov.	<i>Trigonophatnus philippinensis</i> sp. nov.
<i>Heterogamus longicollis</i> sp. nov.	<i>Rhogasella straminea</i> g. et sp. nov.
<i>Colastomion abdominalis</i> g. et sp. nov.	<i>Rhogasella lineata</i> sp. nov.
<i>Macrostomion debilis</i> sp. nov.	<i>Pseudogyroneuron mindanaensis</i> g. et sp. nov.
<i>Macrostomionella philippinensis</i> g. et sp. nov.	<i>Paragyryneuron bicolor</i> g. et sp. nov.
<i>Macrostomionella similis</i> sp. nov.	<i>Gyroneuronella kokujewii</i> g. et sp. nov.
<i>Megarhogas stigmaticus</i> sp. nov.	<i>Hemigyryneuron speciosus</i> g. et sp. nov.
<i>Megarhogas philippinensis</i> sp. nov.	nov.
<i>Megarhogas mindanaensis</i> sp. nov.	<i>Hemigyryneuron suffusus</i> sp. nov.

BRACONIDÆ

RHOADINÆ

Synopsis of the Philippine genera.

- α^1 . Metanotum laterally, partly or entirely, areolated; ovipositor long.
 b^1 . Recurrent vein entering second cubital cell; metanotum with antero-lateral areæ only; radius in hind wings obsolete.
Rhyssalus Haliday.
 b^2 . Recurrent vein entering first cubital cell; metanotum fully areolated.
Neorhyssalus g. nov.
 α^2 . Metanotum laterally not areolated; ovipositor short; recurrent vein entering first cubital cell or interstitial.
 c^1 . First abscissa of radius longer than second; second cubital cell quadrate; terminal abdominal segments retracted; radius in hind wing obsolete; hind tibial spurs straight, very short, pubescent.
Heterogamus Wesmael.

- c¹. First abscissa of radius shorter than second.
- d¹. Hind tibial spurs distinctly curved, naked entirely or in part; maxillary palpi with one or several joints modified or dilated.
- e¹. Metanotum without lateral prominences posterior to spiracles; spiracles circular or oval.
- f¹. Maxillary palpi with third joint enlarged, but not flattened; second cubital cell twice as long as high and not narrowed apically; metanotal spiracles raised on umbos; mesopleura with discal furrows..... *Colastomion* g. nov.
- f². Maxillary palpi with several joints flattened and sometimes twisted; second cubital cell three times as long as high and distinctly narrowed apically; metanotal spiracles not raised; mesopleura without discal furrows.... *Macrostomion* Szepligeti.
- e². Metanotum with blunt lateral prominences posterior to the spiracles; spiracle elliptical; second cubital cell nearly or quite three times as long as high and distinctly narrowed apically; vertex back of ocelli very short..... *Macrostomionella* g. nov.
- d². Hind tibial spurs straight or nearly so, pubescent; maxillary palpi normal, slender, rarely with certain joints inflated, as in *Pseudogyron*.
- g¹. Transverse median and postmedian veins normal, straight.
- h¹. Metanotum without distinct lateral prominences.
- i¹. Abdomen distinctly subpetiolate, the first segment long and strongly narrowed toward base; second abscissa of radius three or four times length of first; ocelli and eyes very large; malar areae and cheeks relatively small; abdomen conspicuously longer than head and thorax together.
- j¹. Metathoracic spiracles elliptical; mesopleura with strong discal furrows; second abscissa of radius swollen at base (in Philippine species); size large.
Megarhogas Szepligeti.
- j². Metathoracic spiracles round or oval; mesopleura without discal furrows or with rudiments only; size medium.
Trigonophatnus Cameron.
- i². Abdomen broadly sessile, the first segment very slightly narrowed toward base and very broad for the length; second abscissa of radius less than three times length of first; ocelli and eyes varying from large to small; abdomen not or but little longer than head and thorax together.
- k¹. Submedian cell as long as median on the median vein, transverse median vein interstitial with basal; ocelli very small; radial vein of hind wings on basal third, suddenly, strongly curved toward costa.
Rhogasella g. nov.
- k². Submedian cell always longer than median on the median vein, usually much longer; ocelli large to small; radial vein of hind wings not suddenly curved toward costa, although radial cell broadened apically in some species.
Rhogas Nees.
- h². Metanotum laterally with strong prominences; mesonotum deeply trilobed; radius in hind wing curved toward costa.

- l¹. Maxillary palpi with certain joints greatly dilated and modified; metanotal prominences not toothed; nervellus in hind wings oblique, slightly curved.
Pseudogyroneuron g. nov.
- l². Maxillary palpi normal, all joints slender, metanotal prominences extended in strong teeth; nervellus in hind wings bent at middle..... Paragyryneuron g. nov.
- g². Transverse median and part of postmedian veins, one or both, strongly curved; mesonotum not trilobed.
- m¹. Stigma very short and wide, twice as long as wide; postmedian vein not strongly swollen, but very strongly curved; metanotum laterally with strong toothed prominences.
Gyroneuron Kokujew.*
- m². Stigma long and narrow, three or more times as long as wide, transverse median vein greatly swollen, although in some species not curved; metanotum without lateral prominences.
- n¹. Notauli distinct on disk of mesonotum; scutellum anteriorly bifoveate; postscutellum small and minutely bifoveate; abdomen distinctly longer than head and thorax together, terminal segments not retracted; ocelli of medium size and distant from eyes, vertex posterior of ocelli long; head and mesonotum nearly smooth; radius in hind wings obsolete.
Gyroneuronella g. nov.
- n². Notauli obsolete on disk of mesonotum; scutellum anteriorly sexfoveate; postscutellum large and sexfoveate; abdomen not or scarcely longer than head and thorax together, terminal segments more or less retracted; ocelli of great size, approximating the eyes, vertex posterior of ocelli very short; head and mesonotum coarsely sculptured; radius in hind wings distinct..... Hemigyryneuron g. nov.

* This Indian genus is inserted for comparison.

Genus RHYSSALUS Haliday

Synopsis of the species.

- a¹. Ovipositor shorter than hind tarsi; abdomen with three visible segments; antennæ yellowish white at base (five or six joints) and concolorous with legs; stigma pale, clouded at apex; head and thorax smooth unicolor Ashmead.
- a². Ovipositor three times length of hind tarsi; abdomen with six visible segments; antennæ unicolorous with the dark ferruginous body, the legs paler; stigma pale throughout; head and thorax heavily sculptured ashmeadii sp. nov.

Rhyssalus unicolor Ashmead.

Rhyssalus unicolor ASHMEAD, Proc. U. S. Nat. Mus. (1905), 28, 970.

"Female.—Length 1.5 mm.; ovipositor shorter than the hind tarsi. Brownish yellow, the sutures of the three-segmented abdomen blackish; stemmaticum black; eyes purplish brown; antennæ toward base (the first five or six joints), the palpi, and the legs white or yellowish white. Wings hyaline, the stigma, except at apex, and the internal veins, except as here-

after noted, yellowish white; the apex of the stigma, the radius, and the costal veins brownish. Head and thorax smooth, the metanotum with a forked carina. The abdomen is longitudinally striated, the segments sub-opaque.

Type.—Cat. 8320, U. S. N. M.

Manila. (Robert Brown.) One specimen."

I have not collected this species; the structure of the type specimen should be described.

Rhyssalus ashmeadii sp. nov.

Dark ferruginous, antennæ concolorous, legs and tegulæ paler, maxillary palpi white; ovipositor guides piceous at the clavate extremities, ovipositor ochraceous; extreme base of hind tibiæ the color of body. Wings slightly, but evenly, obscured with smoky, veins and stigma darker.

Female, length, 3 millimeters; ovipositor, 1.

Head viewed from above with eye margins even with its general outline, not at all bulging; vertex caudad of eyes heavily, transversely striate, rapidly narrowed posteriorly, length of exposed cheek margin about equal to distance between lateral ocelli and eyes; ocelli small, nearly as far from each other as from eyes; ocellar area, as far as to eyes and to face, irregularly rugose. Face broader than long and broader below than above, medially, slightly carinately ridged just below antennæ, the surface finely and evenly rugose; mouth opening very large and very broad; eyes only slightly emarginate opposite antennæ. Head as viewed from side with upper part of face strongly bulging, malar space very large, longer than length of mandible; cheeks broad below, narrowed above to half the width below; eye outline large and subcircular; maxillary palpi reaching tegulæ.

Mesonotum with lateral area shallowly rugose, median area nearly smooth; notauli fine, indistinct, not impressed, rapidly converging to posterior border, where they are separated by a short, smooth, median sulcus. Scutellum anteriorly with two transverse foveæ, backwardly curved at lateral ends and separated by a sharp median carina; disk of scutellum smooth. Metanotum with a sharp median carina on basal third which splits apically, the forks extending laterally in a broad curve and then cephalad to base of metanotum, where they are parallel to the median carina, the area thus inclosed being longer than broad and smooth and shining; the remainder of metanotum is scarcely reticulate-rugose. Mesopleura coarsely, in part obliquely, striate.

Abdomen subsessile, subclavate in general form, the segments

rapidly increasing in size caudad; second segment little more than half the length of first, third and fourth subequal; fifth and sixth subequal; second and fifth tergites broadly depressed on basal third; all tergites very coarsely striate, the striae smooth and straight, and on most segments ending submarginally; sixth tergite with the striae continuously concentric beyond a central point and parallel to the broadly rounded hind margin. Hind tibial spurs very short, scarcely extending beyond tip of tibia.

Stigma of medium size, four times as long as wide, lower margin subangulate at middle where radius is inserted; first abscissa of radius slightly more than half the length of second; second cubital cell subtrapezoidal, about twice as long as high; both transverse cubitals oblique; recurrent nervure inserted at extreme apex of second cubital cell; parallel vein inserted above. In the hind wings, the second recurrent joins anterior vein at origin of radius, which is entirely transparent.

LUZON, Tayabas, Malinao (coll. *Baker*).

This species is named for the late W. H. Ashmead, formerly custodian of Hymenoptera in the United States National Museum.

Genus **NEORHYSSALUS** novum

Eyes very large, malar space and cheeks relatively small. Vertex posterior of ocelli long. Antennae longer than entire body, scape short and swollen, funicle broad and half as long as scape; flagellar joints more than twice as long as wide. Maxillary palpi very slender, long, surpassing tegulae, third to sixth joints subequal, terete.

Scutellum sexfoveate anteriorly. Metanotum entirely without lateral prominences, but fully areolated, middle areae reticulate-carinate; spiracles small, round. Disk of mesopleura with a broad, crenulated, oblique furrow.

Radial cell reaching apex of wing. Radius inserted at middle of the large, deep, subtriangular stigma. First abscissa of radius little more than half length of second; second cubital cell short and somewhat narrowed apically. Recurrent nervure inserted far from apex of first cubital cell. Submedian cell a little longer than median. Parallel vein inserted at lower fourth.

Abdomen subsessile, as long as head and thorax together; three large, long, flat abdominal tergites exposed, the remainder retracted and bent beneath; only the first tergite is distinctly medially carinate. Hind tibial spurs short, straight, and pubes-

cent. Ovipositor long exerted, as long as abdomen, the hypopygidium small.

Type, *Neorhyssalus compositus* sp. nov.

Neorhyssalus compositus sp. nov.

Black; head except interocellar area, and mesonotum except lateral lobes, ferruginous; scape and funicle piceous; palpi, tegulae, venter, and coxae stramineous; remainder of legs testaceous, tibiae and femora paler at base. Wings iridescent, faintly obscured; veins, and stigma except at base, brownish.

Female, length of body, 3.5 millimeters; of ovipositor, 1.5.

Head viewed from above with eye margins even with the general outline, not at all bulging; vertex caudad of eyes smooth and shining, rapidly narrowed posteriorly; length of exposed cheek margin subequal to length of vertex back of ocelli and a little greater than width between lateral ocelli and eyes; ocelli small, somewhat nearer to each other than to eyes; interocellar distance slightly greater than the diameter of an ocellus; depression between anterior ocellus and scrobes abrupt, deep, and nearly smooth. Face subquadrate, medially subumbonate below antennae and strongly depressed in the lower lateral areae next to clypeus, surface nearly smooth, except for a few subobsolete punctures; mouth opening broad, transversely elliptical; clypeus somewhat swollen, strongly convex. Head as viewed from side with face not strongly bulging, malar space very short; cheeks rather narrow, the margin parallel with eye margin; eye outline irregularly subelliptical, broadest at lower third, below which it is rapidly narrowed. Third joint of maxillary palpus slightly bent.

Pronotum strongly sculptured and with a thin, shortly extended, anterior margin. Mesonotum evenly convex, notauli strong but superficial, and the lateral lobes not raised; notauli crenulate, converging very gradually and posteriorly flanking the large flattened median area, the latter coarsely and very irregularly rugose. Scutellum anteriorly sexfoveate, four median foveae long and narrow, two outer larger and rounded, all separated by low, sharp carinae; posterior disk of scutellum strongly convex, smooth, and shining; postscutellum medially bifoveate. Metanotum fully areolated, the two large median basal areae and four large lateral apical areae smooth within, median area and midlateral area strongly reticulate-carinate; spiracles small and round; metapleura reticulate-rugose; upper anterior area of mesopleura finely rugose, remainder of surface

smooth and shining, except for a large, deep, oblique, crenulated discal furrow, surface on either side of this furrow somewhat swollen.

Abdomen subsessile, the three segments visible from above broadened from base to third segment; basal width of first tergite two thirds the apical width and the length about twice; second tergite as long as first, its length one and a half times the basal width, the latter three fourths of the apical; third tergite subquadrate, basal margin strongly incurved, apical margin truncate; remaining segments small, short, smooth, and shining, and in the type specimen bent downward at right angles to remainder of abdomen; first two tergites shining, strongly, longitudinally straight-striate, more strongly so on first; first with a strong median carina; basal two thirds of third tergite with the striæ directed obliquely toward lateral margins, posterior third with strong, curved, transverse striæ. Hind tibial spurs short, straight, and pubescent.

Stigma large, deep, strongly angled below at middle where radius is inserted; first abscissa of radius more than half length of second; second cubital cell somewhat narrowed distad, the length twice the greatest width, first transverse cubital oblique, second vertical and decolored; recurrent nervure inserted a half of its length from apex of first cubital cell, intervening vein decolored. Radius in hind wings entirely obsolete; nervellus vertical.

LUZON, Laguna, Mount Maquiling (coll. *Baker*).

Genus **HETEROGAMUS** Wesmael

While very few species have been described in this genus, they have a wide distribution, being found in Europe, North America, Central America, and New Guinea. It is rather to be expected, therefore, that several species will be found in the Philippines. The description of one Philippine species follows:

Heterogamus longicollis sp. nov.

Fulvo-ochraceous throughout, slightly darker on abdominal tergites; interocellar area black. Wings slightly obscured, stigma and veins piceous, veins on distal half of wing, with proximal two thirds of stigma, paler. Palpi stramineous. Ovipositor black.

Female, length, 5 millimeters; ovipositor very short and subapical.

Head viewed from above with vertex back of ocelli very long, roundly narrowed back of eyes, entire surface finely and shallow-

ly reticulate-rugose; eyes rather small; ocelli small, slightly farther from eyes than from each other and about three times as far from occipital carina as from each other; supra-antennal area strongly, transversely rugose. Face subquadrate, as broad as long, surface minutely roughened, medially short-carinate just below the antennæ; mouth opening very narrow, upper margin strongly arched; eye margins very slightly emarginate opposite antennæ. Head viewed from the side with face very strongly projecting to form a very prominent angle at lower margin of scrobæ; malar space very large, as long as width of eye; cheek broad below, strongly narrowed above; ocelli not at all raised; eye outline very short and broadly elliptical; maxillary palpi reaching tegulæ, very slender, third joint the longest.

Pronotum coarsely rugose and greatly lengthened, as long as head to anterior ocellus. Mesonotum opaque, finely, shallowly reticulate-rugose; notauli barely indicated, straight, converging to posterior margin. Scutellum sculptured like mesonotum, anteriorly with six small foveæ separated by sharp carinæ and well separated from mesonotum; posterior disk of scutellum small and pear-shaped. Metanotum coarsely, closely, and irregularly reticulate-rugose (as are the pleura), and with a continuous median carina; a straight lateral carina passes just below the circular spiracle to near the hind margin, where it turns at a right angle and extends irregularly to median carina. Mesopleura coarsely rugose anteriorly, with a short, very coarsely crenulated, oblique furrow. Mesosternum anteriorly with a strong, transverse, submarginal carina, which extends a short distance on to mesopleura.

Abdomen about as long as head and thorax together, with three large exposed segments; the remainder retracted, of which only the fourth is narrowly visible from above; first segment sessile, twice as broad apically as basally, length one and a half times the width at apex; second tergite a little longer than first and slightly widened apically and like the first with a continuous median carina; third tergite about as long as first, subquadrate and carinate; all tergites finely, irregularly, reticulate-rugose, the reticulations becoming much finer toward apex of third tergite; retracted segments smooth, shining, and stramineous; second suture slightly impressed and finely crenulate. Hind coxæ slender, shorter than their trochanters, finely transversely striate. Hind tibiæ with spurs short and nearly straight.

Stigma large and broad, length about three times the breadth, angled below at origin of radius, which is a little nearer to apex

than to base; first abscissa of radius longer than second, second cubital cell very short, both transverse cubitals oblique, second decolored; recurrent nervure joining cubitus far from second cubital cell, intervening vein nearly as long as first abscissa of radius and decolored; parallel vein inserted far below the middle. Hind wings similar to those of *Macrostomionella*.

LUZON Laguna, Los Baños (coll. Baker).

Genus **COLASTOMION** novum

Eyes of medium size, malar space and cheeks relatively large. Anterior ocellus distinctly farther from the two posterior than the distance between the latter. A narrow area about ocelli, except posteriorly, depressed and striate. Vertex back of ocelli of medium length. Antennæ not as long as entire body; scape one and a half times as long as wide; funicle nearly as long as wide and a little less than half the width of scape; flagellar joints slightly more than twice as long as wide. Maxillary palpi slender, barely reaching tegulæ; third joint as long as fourth and fifth together, somewhat flattened and expanded apically in side view; last three joints slender and terete, sixth longer than fifth, fifth more than half length of fourth. Labial palpi unusually small and short.

Mesonotum scarcely trilobate, notauli shallow, a little impressed anteriorly, posteriorly strongly converging and practically obliterating the posterior median area. Scutellum bifoveate anteriorly. Metanotum medially carinate on basal third, on apical two thirds with a large lozenge-shaped median area; lateral areae very coarsely and strongly reticulate-rugose; spiracle large, round, and raised on a well-defined umbo. Mesopleura with an oblique crenulated discal furrow on posterior half.

Radial cell reaching apex of wing. Radius inserted at basal two fifths of the large, deep, subtriangular stigma. First abscissa of radius less than half length of second; second cubital cell about twice as long as wide, first transverse cubital very oblique, the second vertical, curved, and decolored. Recurrent vein inserted a short distance from apex of first cubital cell. Submedian cell but slightly longer than median. Parallel vein strongly curved and inserted at lower third.

Abdomen subpetiolate, longer than head and thorax together, beyond first segment rather broadly elliptical in outline, tergites all much wider than long, the surfaces of third, fourth, fifth, and sixth somewhat swollen before their hind margins; first and second tergites medially carinate. Second, third, and fourth sutures crenulate, broadly and sharply impressed and somewhat

constricted. Hind tibial spurs as long as fourth tarsal joint, rather strongly curved and naked. Ovipositor very short; hypopygidium very large, deeper than sixth segment, and as long as fifth and sixth tergites together.

Type, *Colastomion abdominalis* sp. nov.

The abdomen in this genus resembles that of *Colastes* Haliday, but other features are distinctive.

Colastomion abdominalis sp. nov.

Head fulvous; interocellar area black; antennæ piceous; palpi ochraceous; thorax ferruginous, postscutellum darkened, tegulæ ochraceous; metanotum black; legs ochraceous, hind coxæ black, except at tips; abdomen ochraceous below, tergites except lateral margins, and ovipositor, apically black; hypopygidium discally piceous. Wings slightly obscured, stigma and veins piceous.

Female, length, 6 millimeters; ovipositor very short, not exceeding abdomen by 0.25 millimeter.

Head viewed from above with vertex back of eyes roundly swollen beyond continuation of eye margin; vertex smooth, except near ocelli; ocellar area, except posteriorly, surrounded by radiating ridges, which do not reach the eyes; vertex not rapidly narrowed caudad, length of exposed cheek margin greater than distance between posterior ocelli and eyes; ocelli farther from eyes than from each other and twice as far from occipital carina as from each other. Face subquadrate, broader than long, inner margins of eyes parallel; surface shining, minutely rugulose, medially carinately elevated just below antennæ; mouth opening narrow, its upper margin nearly horizontal; eyes within very slightly emarginate at antennæ. Head viewed from side with face strongly and roundly bulging, malar space narrower than cheek; cheek broad, slightly narrowed above; vertex outline strongly raised just back of ocelli; eye outline ovate; maxillary palpi long, extending beyond tegulæ, second article as long as next two together.

Mesonotum smooth, shining, notauli very strong and deeply impressed, minutely crenulate anteriorly, very coarsely crenulate posteriorly, where the crenulæ converge and become confluent. Scutellum anteriorly with two ovate foveæ, rugose within and separated by a sharp carina; disk of scutellum small and smooth. Metanotum coarsely reticulate-rugose throughout, basal third with a median carina, which splits posteriorly to form a large diamond-shaped area; spiracle circular, on a distinctly raised prominence. Metapleura shallowly rugose posteriorly, disk

smooth. Mesopleura smooth and shining, with a very broad, short, longitudinal furrow on posterior half below the middle, from the anterior end of which a narrower furrow curves downward and forward; both of these furrows irregularly and partially crenulate.

Abdomen longer than head and thorax together, subpetiolate, subelliptical in outline; third, fourth, and fifth tergites widest; first tergite long, more than twice as wide at apex as at base and slightly longer than second tergite; first and second tergites with strong median carinæ; third to sixth tergites much broader than long, third shortest, all swollen and with strongly constricted sutures; third, fourth, and fifth sutures strongly crenulate; first and second tergites coarsely, longitudinally, reticulate-rugose; third and fourth punctate-rugose on basal two thirds, becoming only sparsely punctate on the shining apical third; fifth shining and subobsoletely and sparsely punctate; sixth smooth and shining. Hind tibiæ with two stout, curved spurs which are as long as fourth tarsal joint.

Stigma large, twice as long as wide, lower margin obtuse, angulate at middle where the radius is inserted; first abscissa of radius about half length of second; second cubital cell twice as long as wide, first transverse cubital oblique, second vertical; recurrent vein inserted near the first transverse cubital; intervening vein decolored; parallel vein inserted below. In hind wings the radius is subobsolete; nervellus oblique.

LUZON, Laguna, Mount Banahao (coll. Baker).

Genus **MACROSTOMION** Szepligeti

Differs from the new genus *Macrostomionella*, in Philippine species, as follows: Metanotum without lateral prominences, but with an indistinct, lanceolate, median area; spiracles circular; median carina of abdominal tergites extending to middle of fourth segment. The enlarged maxillary-palpus joints flattened, fourth joint more or less strongly twisted; stylate sixth joint with distinctly marked pseudojoints. Vertex back of ocelli long. Second cubital cell more strongly narrowed to apex.

The above note, as well as the descriptions of the species that follow, will indicate that our Philippine species agree with previously described species of the genus except in characters of scarcely more than specific value.

Macrostomion debilis sp. nov.

Ochraceous throughout; legs, antennæ, palpi, and tegulæ paler; lateral lobes of mesonotum and abdominal tergites somewhat

darker; interocellar area piceous. Wings faintly obscured, veins piceous, except the decolored second transverse cubital; stigma very pale; its broad costal margin ochraceous.

Male, length, 4.25 millimeters.

Head viewed from above with the medium-sized eyes strongly bulging; vertex back of ocelli long, gradually narrowed back of eyes; length of exposed cheek margins twice the distance from ocelli to eyes and equal to distance from ocelli to occipital carina; occipital carina evenly incurved; surface smooth and shining; ocelli on a slightly raised prominence, but not so strongly turned sidewise as in *Macrostromionella philippinensis*; distance between ocelli slightly less than distance to eyes, distance to occipital carina four times width between posterior ocelli; short radiating striæ in front of the anterior ocellus. Face very short, broader than long, broadened above on account of the deeply emarginate eyes, surface medially long-umbonate below antennæ, lateral areæ and clypeus depressed, the former obscurely cross-striate; mouth opening large, elliptical, the upper margin strongly curved. Head viewed from side, with face margin strongly curved and very prominent at antennal scrobes; malar space small, length more than half width of cheeks; cheeks less than half width of eye, the margin parallel to eye margin, ocelli strongly prominent; eye large, its outline long and broadly subelliptical; maxillary palpi six-jointed with last four joints greatly modified; the first of these joints flattened, dilated, and squamous; second about as long, flattened, half as wide, and linear; the next shorter, narrower, flattened, and spindle-shaped in outline; last as long as preceding, slender, terete, and subdivided into about six pseudojoints; second modified joint somewhat bent and slightly twisted. Labial palpi four-jointed.

Pronotum narrowly exposed, its pleura nearly smooth. Mesonotum smooth and shining, notauli deeply impressed, especially anteriorly, indistinctly crenulate, straight and converging at the middle of posterior border; lateral lobes strongly raised. Scutellum anteriorly with two deep and narrow foveæ, which are separated by a sharp median carina and have outer margins curved, hind margins oblique; posterior disk of scutellum small, smooth, and oval.

Metanotum with entire surface irregularly, longitudinally rugose, leaving a lanceolate median depression with raised margins, which is rough within; notum separated from pleura by a straight crenulated furrow just below the round spiracle; metapleura smooth; mesopleura smooth, without discal furrow.

Abdomen longer than head and thorax together, first tergite long trapezoidal, a little less than twice as wide apically as basally; length one and a half times width at apex; second tergite as long as first, gradually widened, its length a little greater than apical width; third, fourth, and fifth tergites shorter and broader, with a complete median carina running to middle of fourth tergite; first and second tergites and basal halves of fourth and fifth coarsely, irregularly, longitudinally striate; sixth and seventh tergites smooth and shining, sparsely punctate at base; first suture very strongly impressed, second, third, and fourth less so, all sutures indistinctly crenulate. Hind tibiae with two long, equal, curved spurs, which are as long as the three basal tarsal joints together; first hind tarsal joint slightly shorter than following three together.

Stigma large, about four times as long as broad, scarcely angulate at insertion of radius, which is distinctly before the middle; first abscissa of radius about half length of second; second cubital cell somewhat narrowed apically, more than twice longer than high; first transverse cubital very oblique, second vertical and decolored; recurrent vein entering first cubital cell at extreme apex, nearly interstitial; parallel vein inserted far below middle; submedian cell considerably longer than median.

LUZON, Laguna, Los Baños (coll. *Baker*).

Genus *MACROSTOMIONELLA* novum

Eyes very large, malar space and cheeks relatively small. Ocelli large, equidistant, rather strongly raised. Vertex back of ocelli rather short, about as long as ocellar area. Antennae longer than entire body; scape one and a half times as long as wide; funicle as long as wide and half length of scape; flagellar joints about three times as long as wide. Maxillary palpi longer than anterior femora, with third and fourth joints terete, but very greatly enlarged; diameter of first gradually increasing proximad until it is more than twice the diameter of anterior femora; fourth joint nearly as wide basally as the third apically and gradually narrowed to apex; first joint nearly twice as long as a mandible, fourth about three fourths as long, fifth joint short and broad, sixth stylate. Labial palpi stout, longer than long diameter of eye, second joint somewhat swollen and subequal to fourth in length, third shorter; upper tooth of mandibles projecting far beyond lower tooth.

Mesonotum trilobate, notauli deep, posterior median area very narrow and grooved. Scutellum quadrifoveate anteriorly. Metanotum with a very short median carina anteriorly, remainder

of its surface coarsely reticulate-rugose except for two large, depressed, laterobasal areas. Spiracle elliptical, not raised; lateral areas with blunt lateral prominences slightly below and behind the position of the toothed prominences in *Gyroneuron*. Disk of mesopleura with a very broad, impressed, centrally crenulate, oblique groove.

Radial cell reaching apex of wing. Radius inserted at basal two fifths of the long and rather narrow stigma. First abscissa of radius less than half length of second; second cubital cell more than twice as long as wide; first transverse cubitus oblique, second vertical and decolored. Recurrent vein inserted a short distance from apex of first cubital cell. Submedian cell longer than median by nearly length of transverse median. Parallel vein inserted at lower third, sinuous a little before insertion.

Abdomen sessile, longer than head and thorax together, beyond first segment narrowly elliptical in outline; second tergite as long as wide apically or longer, remainder broader than long; first and second tergites and basal half of third tergite medially carinate; sutures not depressed, but basal surfaces of fourth, fifth, and sixth tergites strongly depressed. Hind tibial spurs slender and longer than fourth tarsal joint, slightly curved and naked.

Type, *Macrostomionella philippinensis* sp. nov.

This genus belongs to the group of genera including *Cystomastax*, *Macrostomion*, and *Pelecystoma*. In *Macrostomion* only has a species been described from the Oriental Region. The present genus is perhaps nearest to *Cystomastax*, described from Peru, but it differs in the structure of the metanotal spiracles, the radial vein, the submedian cell, and the first and second abdominal segments. The grouping of a series of genera on modified maxillary palpi is, I believe, unnatural; but it will have to be continued, in part, until the species and genera formerly described shall have been reexamined and more fully studied and characterized. It seems certain that the modified palpi have appeared in several distinct genetic lines.

Synopsis of the species.

- α^1 . Posterior ocelli nearer to occipital carina than once their diameter; abdominal tergites finely, longitudinally reticulate-rugose; stigma little narrowed to a blunt apex; second transverse cubital oblique.
philippinensis sp. nov.
- α^2 . Posterior ocelli distant from occipital carina by one and two-thirds times their diameter; abdominal tergites very strongly and coarsely, longitudinally anastomose-rugose; stigma rapidly narrowed to an acute apex; second transverse cubital vertical..... *similis* sp. nov.

Macrostomionella philippinensis sp. nov.

Basal joints of antennæ, vertex, prothorax, mesothorax, and middle and hind coxæ bright ferruginous, the latter darker apically. Flagella, lower part of head, mandibles (excepting the black teeth), palpi, fore coxæ, and legs stramineous; middle and hind femora apically tinged with yellow. Wings slightly obscured, stigma and veins piceous, areæ at apices of radial, third cubital, and third discoidal cells smoky.

Female, length, 6.5 millimeters; ovipositor very short, scarcely projecting.

Head viewed from above with vertex back of ocelli very short, although well filled behind eyes, the surface obscurely, punctulately roughened; ocelli very large, nearer to eyes, to the occipital carina, and to each other than once their own diameter. Face somewhat longer than broad, narrowed at middle by the incurving of the eyes, medially long-umbonate and narrowly smooth below antennæ, lateral areæ horizontally striate; mouth opening large and elliptical; eyes strongly emarginate opposite antennæ. Head viewed from side with umbonate portion of face very strongly projecting, malar space as long as width of eye; cheek broad, outer margin parallel to eye margin; eye outline very short and broadly elliptical; second to fourth joints of maxillary palpi enormously swollen, subequal in length; second joint long urn-shaped, twice as long as wide at the truncate tip; third joint narrower than second, ovate; fourth joint half width of third and spindle-shaped; fifth joint stylate.

Mesonotum shining; subobsoletely, punctulately roughened; notauli anteriorly very broad and crenulate, becoming obsolete posteriorly in a broad strong impression, which has a narrow, obscurely pitted, median groove. Scutellum anteriorly with two oblique foveæ, smooth within and separated by a sharp carina; disk of scutellum smooth and nearly twice as long as broad. Metanotum coarsely and strongly reticulate-rugose, with a rudiment of a median carina at base and with a blunt projection on either side in the position of the spines in *Gyroneuron*, to the summits of which pass a number of radiating rugæ; spiracles elliptical, not at all raised. Mesopleura smooth.

Abdomen subsessile, subelliptical, lateral margins of first three tergites in a straight line; first tergite long and narrow, gradually broadened apically, twice as long as wide at apex; second tergite as long as first, gradually broadened apically; third and following, including the fully exposed seventh, progressively shorter and, after the third, narrower; first and second and basal

half of third with a sharp median carina; all tergites, except seventh, finely, longitudinally reticulate-rugose; seventh shining, sparsely, shallowly punctate. Hind tibiae with two long, curved, subequal, naked spurs, which are longer than fourth tarsal joint.

Stigma very long and narrow, more than four times as long as wide; radius inserted at basal third, apical two thirds only slightly narrowed to the rather blunt apex; first abscissa of radius about one third length of second; second cubital cell three times as long as wide; both transverse cubitals oblique and decolored, the first angulate at middle; recurrent vein inserted a short distance before first transverse cubital, intervening vein decolored; parallel vein inserted a little below middle. In hind wings second recurrent joins anterior vein at origin of radius, which is strong and dark like the other veins; nervellus oblique.

LUZON, Laguna, Mount Maquiling (coll. *Baker*).

This very remarkable insect is unique among the Rhogadinæ of the Philippines, not only in its extraordinary maxillary palpi, but in the wing color, in the stigma, and in the sculpturing of face and of metanotum.

Macrostomionella similis sp. nov.

Ochraceous; borders of mesonotum piceous; interocellar area, mesonotum, and abdominal dorsum irregularly black on median half. Antennæ piceous; wings faintly smoky, veins and stigma pale sordid stramineous; costal margin of stigma much brighter; basal vein dark.

Male, length, 5.5 millimeters.

Head viewed from above with eyes strongly bulging beyond head outline, vertex back of eyes slightly shorter than ocellar area, but longer than exposed cheek margin; the surface with a few subobsolete punctures; ocelli very large, nearer to eyes and to each other than once their own diameter, but one and two-thirds times their diameter from the occipital margin. Face subquadrate, slightly broader than long, sides nearly parallel; surface subobsoletely punctate-rugose, medially very short-carinately elevated below antennæ; mouth opening broadly elliptical; clypeus semilunate, width one and one-half times the length, basal suture highly arched; clypeal pits twice their diameter from eyes; eyes very gently emarginate at antennæ. Head viewed from side with upper part of face very strongly projecting; malar space longer than lower width of cheek; cheek below, one third diameter of eye, gradually narrowing above; ocelli prominent; eye outline broadly elliptical, broader on upper

half than on lower half; maxillary palpi longer than anterior femora, with third and fourth joints a little flattened, but very greatly enlarged, diameter of first gradually increasing proximad until it is more than twice the diameter of anterior femora, fourth joint nearly as wide basally as third apically and gradually narrowed to apex; length of first joint nearly twice length of a mandible, fourth about three fourths as long, fifth joint short and broad, sixth stylate. Labial palpi stout, longer than long diameter of eye, second joint somewhat swollen and subequal to fourth in length, third joint shorter.

Mesonotum trilobate, shining, subobsoletely punctulate. Notauli deeply impressed and strongly crenulate as far as the middle of the narrow postero-median area, which has a long, strongly pitted median groove. Scutellum anteriorly with two very large foveæ, each of which has a low, rudimentary median carina. Disk of scutellum punctulate, a little longer than broad. Metanotum coarsely and strongly reticulate-rugose, a rudiment of median carina at base and a blunt projection on either side in the position of the spines in *Gyroneuron*, to the summits of which pass a number of radiating rugæ; spiracle elliptical, not at all raised. Mesopleura smooth, posterior submargin crenulate, anterior submargin indistinctly, sparsely, longitudinally striate, on posterior half of disk with a short and broad longitudinal furrow, which is crenulate only near the upper border.

Abdomen subsessile and subelliptical; lateral margins of first three segments, except base of first, in a straight line; first tergite broad, the length one and one-half times the apical width, gradually narrowing proximad on apical two thirds, but narrowed suddenly on basal third; second tergite as long as first, gradually broadened apically; third and following, including the very short seventh and eighth, progressively shorter and, after the third, narrower; first and second tergites with a distinct median carina; all tergites, except seventh and eighth, coarsely, strongly, longitudinally rugose with frequent anastomosing. Hind tibiæ with two long, curved, subequal spurs, which are longer than fourth tarsal joint.

Stigma long and narrow, more than four times as long as wide, radius inserted at basal third, apical two thirds rapidly narrowed to an acute apex; first abscissa of radius more than one third, but less than one half, length of second; second cubital cell two and one-half times as long as wide; first transverse cubitus oblique and straight, the second vertical and decolored; recurrent vein inserted a short distance before apex of first cubital cell,

the intervening vein decolored; parallel vein inserted a little below middle.

LUZON, Laguna, Mount Maquiling (coll. Baker).

While *Macrostomionella philippinensis* and *M. similis* differ in a number of striking details, still they coincide in all important generic characters. In color pattern the latter species bears a remarkable resemblance to *Rhogas cameroni* sp. nov.

Genus MEGARHOGAS Szepligeti

This genus, based on two inadequately described species, appeared first in Szepligeti's Braconidæ,² the two species, *longipes* and *minor*, being from Celebes. On Plate II, fig. 26, is illustrated a species called *M. luteus* Szepl., which is not otherwise mentioned in the work, even in the Errata.

No Philippine species shows the strongly clavate abdomen as illustrated for *M. luteus*, although our species are clearly congeneric.

Synopsis of the species.

- a¹. First abscissa of cubitus and first transverse cubitus forming an acute angle.
 - b¹. Radius in hind wings nearly parallel to costa; notauli, except anteriorly, not distinctly crenulate; mesopleura with a strong, oblique, discal furrow; first abscissa of cubitus bisinuate; transverse median vein vertical; stigma piceous..... *stigmaticus* sp. nov.
 - b². Radius in hind wings strongly upcurved at middle toward costal; notauli strongly crenulate; mesopleura without oblique discal furrow; first abscissa of cubitus evenly upcurved; transverse median vein very oblique; stigma stramineous..... *philippinensis* sp. nov.
- a². First abscissa of cubitus and first transverse cubitus forming a right angle; radius in hind wings strongly upcurved at middle toward costa.
 - c¹. Stigma largely piceous; general color obscure ferruginous; length, 10 millimeters *mindanaensis* sp. nov.
 - c². Stigma piceous only on upper posterior border; general color ochraceous; length, 8 millimeters..... *szepligetii* sp. nov.

Megarhogas stigmaticus sp. nov.

Pale ferruginous, the abdomen darker above; interocellar area piceous; antennæ piceous, paler at extremities. Wings irregularly suffused with pale ochraceous on basal half, remainder very pale smoky; veins ochraceous; stigma piceous.

Female, length, 16 millimeters.

Head viewed from above not strongly transverse; eyes very large and very strongly bulging; vertex not rapidly narrowing back of eyes, but with the cheek margin strongly bulging;

² Wytsman's Genera Insectorum (1904), 83.

occipital carina broadly incurved and subangulate at middle; length of exposed cheek margin one and a half times the distance from ocelli to eyes, the latter distance but little less than that from ocelli to occipital carina and subequal to long diameter of an ocellus; surface of vertex smooth and shining; ocelli large, separated by about half their long diameter; surface at sides and in front of anterior ocelli shallowly, radiately wrinkled.

Face about as long as wide above at the deeply emarginate eyes; eye margins strongly outcurved below; surface strongly, medially, subumbonately raised on upper half, on either side a short depressed area above clypeal pit; face shallowly, transversely wrinkled, discontinuously on umbo; clypeus short, transverse, basal suture subobsolete, clypeal pits close to eyes; mouth opening very large and broad, broadly elliptical, lower clypeal margin nearly straight; entire surface of mandibles strongly, sparsely punctate.

Head viewed from side with face somewhat prominent above; cheeks broad throughout, half width of eye, outer margin parallel with eye margin, surface smooth and shining; malar space very small, its length less than half width of cheek, its surface together with a narrow curved area about lower margin of eye, cross-striate; eye short and very broadly subelliptical, broadest on lower half.

Mesonotum deeply trilobate, smooth and shining, notauli deeply impressed, crenulæ apparent only near anterior extremities, terminating posteriorly on the sides of a long, narrow, deep median furrow on posteromedian area. Scutellum anteriorly with two large and rather shallow foveæ, separated by a sharp median carina; posterior disk of scutellum smooth. Postscutellum with two small median foveæ separated by a sharp carina; lateral area rugose. Metanotum shallowly reticulate-rugose on anterior third, very strongly, but irregularly, transversely rugose on posterior two thirds, with a complete, but partly sinuous, median carina; below the elliptical spiracle a longitudinal carina passes to anterior border, while posteriorly a foveated furrow extends to posterior border; metapleura shining, obscurely roughened; mesopleura smooth and shining, with a short crenulated furrow within an oblique discal impression in lower half; a few short vertical rugæ below wing.

Abdomen pedicellate, about twice the length of head and thorax together, gradually widened to third tergite, six tergites fully exposed; first tergite very slender from base to spiracles, which

are situated at two fifths of length from base, thence very gradually widened to apex, width at base about half that at spiracles and one fourth that at apex; length about two and one-half times width at apex; length of second tergite a little less than twice width at apex and slightly longer than first; third and fourth tergites distinctly broadened apically, with the posterolateral angles prominent; fifth tergite subquadrate; third, fourth, and fifth tergites subequal in length and width and shorter and broader than second; fifth a little shorter, smooth and shining, decolored, narrowed somewhat to the incurved apex; sixth tergite retracted, first to fifth tergites longitudinally rugose, the rugæ freely anastomosing, becoming obsolete at extreme apex of fifth tergite; a continuous median carina on first three tergites, finer on third; first suture sharply impressed, posterolateral angles of first segment acutely produced; second and third sutures strongly depressed and crenulate, the latter constricted, fourth and fifth sutures slightly constricted, the former crenulated at sides; second tergite with shallow gastrocœli. Hind tibiæ with two stout curved spurs, as long as fourth tarsal joint; hind tibiæ and tarsi long and slender, the first tarsal joint as long as three following together.

Stigma long and narrow, about four times as long as wide at insertion of radius, where the margin is straight and not at all angulate; first abscissa of radius about one fourth length of second; second cubital cell three times as long as wide, slightly broader at base; first transverse cubitus nearly vertical below, on upper third swollen and bent at beginning of swollen portion; second transverse cubitus nearly vertical and decolored, second abscissa of radius swollen at base; first abscissa of radius strongly bisinuate; recurrent vein joining cubitus at extreme apex of first cubital cell, intervening vein decolored; parallel vein inserted at lower fourth; submedian cell considerably longer than median; transverse median vein vertical.

MINDANAO, Davao (coll. *Baker*).

***Megarhogas philippinensis* sp. nov.**

Dark ochraceous; abdomen ferruginous; interocellar area, a large spot on propleura, two separated spots on disk of mesopleura, and fore femora at extremities, piceous. Wings slightly suffused with ochraceous; veins ochraceous.

Female, length, 15 millimeters.

Head viewed from above not strongly transverse, eyes very large and very strongly bulging; vertex back of ocelli short and rapidly narrowing behind eyes, occipital carina nearly straight,

slightly trisinate; length of exposed cheek margin one and one-half times the distance from ocelli to eyes, the latter distance three fourths of that from ocelli to occipital carina or three fourths the long diameter of an ocellus; surface of vertex smooth and shining; ocelli large, separated by about half their diameter; surface in front of anterior ocellus shining and obscurely, sparsely, radiately striate.

Face as long as wide above, where the eyes are rather deeply emarginate, narrowed below by the strongly curving eye margins; surface slightly raised medially and with an obscure fold next to eye, shining and faintly, longitudinally wrinkled above, and with few scattered obscure punctures; mouth opening elliptical, very broad, its upper margin broadly curved; clypeus short, transverse, the basal suture subobsolete, clypeal pits close to eyes; outer surface of mandibles minutely roughened.

Head viewed from side with face evenly curved below antennæ; cheeks rather broad below, about one third breadth of eye, slightly broader above; malar space and cheek smooth and shining; eye short and very broadly subelliptical, broadest on lower half.

Mesonotum deeply trilobate, smooth or minutely roughened, shining, notauli deeply impressed, conspicuously crenulate and terminating posteriorly at the middle of the narrow, sharply rimmed, median furrow on posteromedian area. Scutellum anteriorly deeply bifoveate, foveæ separated by a sharp median carina; disk of scutellum nearly smooth, its tip crossed with piceous. Postscutellum with a large subcircular median fovea, which is rugose within. Metanotum strongly rugose, its surface very uneven; a shallow median furrow is crossed by irregular rugæ, but followed apically by a very short median carina; on either side of the median furrow at one third the length from apex is a low, irregular, crested area from which rugæ radiate; spiracle elliptical, an irregular, longitudinal carina passing forward from just below spiracle, a longitudinal depressed area with transverse rugæ posterior to it; metapleura rugose; mesopleura below and anteriorly obscurely rugose, remainder nearly smooth, on posterior one fourth with a blunt vertical ridge; depressed area beneath wing broad and shallow.

Abdomen subpedicellate, nearly twice the length of head and thorax together, widest at third tergite; six tergites fully exposed; first tergite very slender basally to spiracles, which are situated at one third of length from base, thence very gradually widening to apex, width at base about one half that at spiracles

and one third width at apex; length of second tergite twice the width at apex and about equal to length of first; third, fourth, and fifth tergites quadrate, parallel-sided; third and fourth about three fourths length of second; fifth a little shorter; sixth narrower than fifth and three fourths its length, narrowed toward the concave-margined apex, smooth and shining; first to fifth tergites thickly, longitudinally rugose, this becoming obsolete on apical half of fifth tergite; a strong continuous median carina extends to apical fourth of third tergite; a rudimentary median carina near base of fourth tergite; first suture sharply impressed, its borders on both segments carinately margined, posterolateral angles of first segment acutely produced; second and third sutures somewhat depressed and distinctly crenulated; fourth suture a little constricted, but not crenulate; second tergite with shallow gastrocœli. Hind tibiæ with two stout curved spines as long as fourth tarsal joint; hind tibiæ and tarsi very long and slender; first tarsal joint as long as three following together.

Stigma long and narrow, four times as long as wide at insertion of radius where the margin is straight; first abscissa of radius about one fourth length of second; second cubital cell three times as long as high, not at all narrowed toward apex; first transverse cubitus nearly vertical below, on upper third swollen and bent at beginning of swollen portion; second transverse cubitus nearly vertical and decolored; second abscissa of radius swollen at base; first abscissa of cubitus strongly upcurved and inserted near costa; recurrent vein joining cubitus at extreme apex of first cubital cell, intervening vein decolored; parallel vein inserted at lower fourth; submedian cell a little longer than median; transverse median vein very oblique.

LUZON, Laguna, Los Baños (coll. *Baker*).

Megarhogas mindanaensis sp. nov.

Pale ferruginous with darker shadings on lateral lobes of mesonotum, lateral areæ of metanotum, apical half of first abdominal tergite, median line and two lateral spots on third tergite, apical half of fourth tergite, all of fifth and sixth tergites, and upper surface of hind coxæ. Interocellar area piceous. Flagella bright ferruginous basally, paler apically. Wings suffused with a pale smoky tinge and with a broad, decolored, transverse band at two thirds of length from base. Veins in wings all ferruginous, stigma piceous in basal half, stramineous on apical half.

Female, length, 10 millimeters.

Head viewed from above not strongly transverse, eyes very

large and very strongly bulging; vertex back of ocelli short and rapidly narrowing behind eyes, but with cheek margin not outcurved; occipital carina forming a very broadly obtuse angle at middle; length of exposed cheek somewhat more than twice distance from ocelli to eyes, the latter distance about half the distance from ocelli to occipital margin and half long diameter of an ocellus; ocelli very large, the two posterior separated by less than half their diameter, the anterior more widely separated; surface of vertex behind ocelli smooth and shining; surface in front of anterior ocelli shallowly, sparsely, radiately wrinkled.

Face as long as wide above, where the eyes are deeply emarginate, narrowed below by the strongly outcurved eye margins; surface raised along median line, depressed on midlateral areæ and obscurely and irregularly transversely rugose-punctate, except medially; clypeus transverse, basal suture subobsolete, apical margin little incurved; clypeal pits close to eyes; mouth opening broadly elliptical; second joint of labial palpi and third joint of maxillary palpi apically somewhat swollen; outer surface of mandibles minutely roughened.

Head viewed from side with face strongly prominent below antennæ; cheek narrow, outer margin parallel with eye margin, below about one fourth breadth of eye; malar space very small, its length about three fourths width of cheek; both malar space and cheek smooth and shining, but with a very small cross-striate area next to lower eye margin; eye very large, subelliptical, broadest on lower half.

Mesonotum deeply trilobate, smooth or minutely roughened, and shining; the notauli deeply impressed, minutely crenulate, and terminating posteriorly at the middle of the narrow median furrow on posteromedian area, scutellum anteriorly bifoveate, foveæ separated by a sharp median carina; posterior disk nearly smooth, long-acute triangular. Postscutellum with four small foveæ separated by sharp carinæ, median carina the strongest. Metanotum coarsely reticulate-rugose; a sharp-rimmed, median, lanceolate area crossed by three transverse rugæ; posterior lateral areæ somewhat prominent, below with radiating rugæ; spiracle elliptical, a longitudinal carina just below it, extending one half length of metanotal margin; metapleura broadly depressed posteriorly, and with a few irregular rugæ about border of depressed area, very shallowly rugose anteriorly, a deep furrow near anterior margin is crenulate above; mesopleura smooth and shining, posterior border crenulate, disk

with a longitudinal, crenulate furrow, anteriorly bent downward, two small depressed areae beneath wings, anterior border finely rugose.

Abdomen subpedicellate, about one and three-fourths times length of head and thorax together, widest at third, fourth, and fifth segments; six segments fully exposed; first segment slender basally to spiracles, which are two fifths of the length from base, thence very gradually widened to apex, width at base about two thirds that at spiracles and one third that at apex, the length about three times width at apex; length of second segment one and one-half times the width at apex and slightly shorter than first; third segment three fourths length of second, somewhat broadened apically, apical width a little greater than length; fourth and fifth segments quadrate, fourth subequal to third in length, fifth a little shorter; sixth narrower than fifth and three fourths its length, narrowed toward the straight margined apex and smooth and shining; first to fifth tergites thickly, longitudinally rugose, this becoming obsolete on apical half of fifth tergite, where the surface is minutely and obliquely wrinkled; a strong continuous carina extends to near apex of third tergite; first suture slightly impressed, posterior lateral angles of first segment acutely produced, median portion of hind margin somewhat raised; second and third sutures broadly and shallowly depressed and long crenulate; second tergite with long narrow gastrocelli. Hind tibiae with two stout curved spines, as long as fourth tarsal joint; hind tibiae and tarsi not as long and slender as in *M. philippinensis*, the first hind tarsal joint as long as the three following together.

Stigma long and narrow, three and one-half times as long as wide at insertion of radius, which is one third of the length from base, and here the margin is straight; first abscissa of radius about one third length of second, second cubital cell three times as long as wide, distinctly narrowed on apical half, first transverse cubitus oblique, slightly curved and decolored at lower extremity, bent and swollen at upper extremity; second transverse cubitus curved, nearly vertical, and decolored; second abscissa of radius strongly curved and swollen on basal third; first abscissa of cubitus curved downward on basal half; recurrent vein joining cubitus near apex of first cubital cell, intervening vein decolored; parallel vein inserted at lower eighth; submedian cell a little longer than median, transverse median vein vertical.

MINDANAO, Davao (coll. Baker).

Megarhogas szepligetii sp. nov.

Pale ochraceous, becoming bright ferruginous on antennæ, hind coxæ, femora, and tibiæ, and darker on fourth to sixth tergites; interocellar area piceous. Wings faintly obscured, smoky, and with an indistinct paler transverse band on apical third; veins brown, upper basal margin of stigma darker.

Male, length, 8 millimeters.

Head viewed from above not strongly transverse, eyes very large and strongly bulging; vertex back of ocelli short, rapidly narrowing behind eyes, exposed cheek margin nearly straight; occipital carina straight, not incurved; length of exposed cheek margin scarcely twice the distance from ocelli to eyes, the latter distance more than half the distance from ocelli to occipital margin and two thirds the long diameter of an ocellus; ocelli of medium size, separated by about half their diameter; surface of vertex behind ocelli smooth and shining; surface in front of anterior ocellus wrinkled only over insertions of antennæ.

Face about as long as wide above where the eyes are deeply emarginate, narrowed below by the strongly outcurved eye margins; surface slightly raised along median line on upper half, slightly, longitudinally depressed on midlateral areæ; lateral areæ finely, shallowly, obliquely rugose; clypeus transverse, basal suture subobsolete, apical margin broadly incurved; clypeal pits close to eyes; mouth opening broad, elliptical; outer surface of mandibles minutely roughened.

Head viewed from side with face strongly prominent below antennæ; cheeks narrow, outer margin parallel with eye margins, below about one fourth width of eye; malar space very small, its length about three fourths width of cheek; both malar space and cheek smooth and shining; eye very large, subelliptical, broadest on lower half.

Mesonotum deeply trilobate, smooth or minutely roughened, and shining, notauli deeply impressed, minutely, obscurely crenulate, more strongly so posteriorly, terminating posteriorly at middle of the narrow median furrow on posteromedian area. Scutellum anteriorly bifoveate, the foveæ separated by a sharp median carina; posterior disk nearly smooth, long triangular. Postscutellum with two small median foveæ separated by a sharp carina, their outer margins oblique. Metanotum reticulate-rugose; a sharp-rimmed, median, lanceolate area crossed by three transverse rugæ; posterolateral areæ somewhat prominent and below with radiating rugæ; spiracle elliptical, and below it a longitudinal carina passing forward; metapleura depressed

on posterior third, and there with a few strong irregular rugæ, anteriorly finely rugose; mesopleura smooth and shining on disk, an impressed crenulate furrow crossing entire disk in line of long axis of body; below wings with a marginal depressed area, anterior border and area below longitudinal groove shallowly rugose.

Abdomen subpedicellate, one half longer than head and thorax together, widest at fourth segment, seven segments fully exposed; first segment slender basally, evenly broadened to apex; width at base nearly half that at apex, the length about two and one-half times the width at apex; length of second segment about one and one-half times width at apex and slightly shorter than first segment; third segment three fourths length of second, a little broadened apically, apical width slightly greater than length; fourth and fifth segments quadrate, fourth slightly shorter than third, fifth a little shorter; sixth narrower than fifth and three fourths its length; sixth one half length of fifth, smooth and shining, and its apical margin broadly incurved; only the point of seventh visible; first to fifth tergites thickly longitudinally rugose, this becoming obsolete on apical half of fifth tergite, where the surface is minutely roughened; a strong, continuous carina extends to apex of third tergite; first suture sharply impressed, posterolateral angles of first segment acutely produced, median portion of hind margin somewhat raised; second suture shallowly, broadly depressed, and long crenulate; third, fourth, and fifth sutures more strongly and narrowly depressed and crenulate; second tergite with small gastrocæli. Hind tibiæ with two short curved spines, the inner longer, as long as fourth tarsal joint; first hind tarsal joint as long as the three following together.

Stigma long and slender, three and one-half times as long as wide at insertion of radius, which is one third of length from base, and here the margin is straight; first abscissa of radius about one third length of second; second cubital cell twice as long as widest part, distinctly narrowed on apical half, first transverse cubitus oblique, straight and decolored at lower extremity, slightly bent, swollen at upper extremity; second transverse cubitus curved, nearly vertical, and decolored; second abscissa of radius curved and swollen on basal third; recurrent vein joining cubitus very near apex of first cubital cell, intervening vein decolored; parallel vein inserted at lower sixth; submedian cell longer than median; transverse median vein slightly oblique.

LUZON, Laguna, Mount Maquiling (coll. Baker).

This species is similar to *M. mindanaensis* in most respects, but is strikingly distinct in the structure of its mesopleura.

Genus TRIGONOPHATNUS Cameron

Synopsis of the species.

- a*¹. Antennæ and stigma piceous..... *nigricornis* sp. nov.
*a*². Antennæ and stigma pale ochraceous..... *philippinensis* sp. nov.

Trigonophatnus nigricornis sp. nov.

Ochraceous, slightly darker on abdominal tergites, ovipositor concolorous; interocellar area and antennæ piceous, scape paler; wings faintly obscured, stigma and veins piceous, except decolored second transverse cubital and transverse median.

Female, length, 6 millimeters; ovipositor very short, about as long as sixth tergite.

Head viewed from above with the medium-sized eyes strongly bulging; vertex back of ocelli long, roundly narrowed back of eyes; length of exposed cheek margin nearly as great as distance from ocelli to occipital carina, the occipital carina very strongly curved; surface of vertex smooth and shining; ocelli small, farther from eyes than from each other, about four times as far from occipital carina as from each other, with short radiating striæ about the anterior ocellus. Face short, broader than long, broader above, due to the fact that the eyes are deeply emarginate opposite antennæ; surface with a median carina to near clypeus, lateral areæ cross-striate, more strongly so above; mouth opening very large, subcircular, the upper margin thus strongly curved. Head viewed from side with face margin curved and strongly projecting at antennal scrobes; malar space rather small, length about half width of eye; cheek very broad, broader than length of malar space and slightly broader above than below, the margin subparallel to eye margin; ocelli rather strongly projecting; eye outline short and broadly subelliptical; maxillary palpi slender and very hairy, six-jointed, first two joints short, remainder subequal in length; labial palpi four-jointed.

Mesonotum smooth and shining; notauli very deep, broad, and coarsely crenulated anteriorly, becoming much smaller and weaker, disappearing in the posterior median depression, which has a small median groove. Scutellum with two subcircular foveæ anteriorly, which are separated by a sharp carina and are smooth within; posterior disk of scutellum smooth. Metanotum with six or eight discal striæ on posterior half, which converge at apical border; at the side above the large round

spiracle is an oblique crenulate depression, passing to apical margin; below the spiracle a fine lateral carina curves about the lower half of spiracle and thence passes irregularly to apical margin; below this carina, on the pleura, an oblique crenulated depression; remainder of pleura smooth. Mesopleura smooth and shining, without discal furrow.

Abdomen longer than head and thorax together; first segment sessile, twice as broad at apex as at base, length one and one-half times width at apex; second tergite as long as first, width at apex nearly equal to length; third, fourth, fifth, and sixth subequal in length, fourth very broad; first tergite medially carinate only on basal half, second only on basal three fourths; first four tergites finely, densely, longitudinally reticulate-rugose; fifth weakly punctate-striate at base only, the remainder of fifth together with sixth smooth and shining; third and fourth sutures only, deeply impressed and crenulate. Hind tibiae with two long, equal, curved spurs; first hind tarsal joint as long as three following together.

Stigma large, about five times as long as broad, not at all angulate at insertion of radius, this being nearer to base than to apex; first abscissa of radius a little less than half length of second; second cubital cell more than twice as long as high; first transverse cubital very oblique, second nearly vertical; recurrent vein interstitial; parallel vein inserted below middle; submedian cell considerably longer than median.

LUZON, Laguna, Mount Maquiling (coll. *Baker*).

Trigonophatnus philippinensis sp. nov.

Ochraceous throughout; legs, antennae, palpi, and tegulae somewhat paler; interocellar area piceous; wings faintly obscured, stigma and veins on apical half of wing ochraceous, on basal half piceous, second transverse cubital and recurrent veins decolored.

Female, length, 6.5 millimeters; ovipositor as long as sixth tergite; hypopygidium very large.

Head viewed from above with the medium-sized eyes strongly bulging, vertex back of ocelli short, strongly narrowed back of eyes; length of exposed cheek margin nearly twice the distance from ocelli to eyes and greater than the distance from ocelli to occipital carina; occipital carina subangulate at center; surface of vertex smooth and shining; ocelli on a distinctly raised prominence and directed strongly sidewise, of medium size, distance between them subequal to the distance to eyes; distance to occipital carina twice width between posterior ocelli; short

radiating striæ in front of anterior ocellus. Face very short, broader than long, broadened above on account of the deeply emarginate eyes, surface medially long-umbonate below antennæ, lateral area and clypeus depressed, the former obscurely cross-striate above; mouth opening very large, subcircular, upper margin very strongly curved. Head viewed from side with face margin strongly curved and very prominent at antennal scrobes; malar space small, length a little more than half width of cheeks; cheeks broad, more than half width of eye, margin parallel to eye margin; ocelli strongly prominent; eye large, its outline long and broadly subelliptical; of last four joints of maxillary palpi the second is longest.

Pronotum nearly hidden by the strongly projecting middle lobe of mesonotum. Mesonotum shining and nearly smooth; notauli very deep, coarsely crenulated anteriorly, becoming broader, shallower, and more obscurely crenulated where they enter the very wide posterior depression, the last with a short median groove, anterior to which the surface is obscurely punctate-striate. Scutellum anteriorly with two large subquadrate foveæ, separated by a sharp median carina, roughened within, and with curved outer margins; posterior disk of scutellum smooth.

Metanotum with a thick median carina and on either side a submedian, finer carina, these forming an elongate median area, which is broader posteriorly; remainder of surface irregularly and obscurely punctate-rugose; below the round spiracle, which is set in a circular depressed spot, is an oblique crenulated furrow passing to apical margin; remainder of metapleura smooth; mesopleura rugose anteriorly and below, disk without oblique furrow.

Abdomen longer than head and thorax together; first segment twice as wide apically as basally, length one and one-half times width at apex; second as long as first, gradually broadening apically, the length more than apical width; third and fourth subequal (much shorter than second); fifth a little longer; sixth a little shorter, fourth widest; first four tergites finely longitudinally reticulate-rugose; fifth segment at base obscurely punctate-rugose, remainder and sixth segment smooth and shining; first and second tergites with distinct median carina on basal halves only; second, third, and fourth sutures shallowly depressed and crenulate. Hind tibiæ with two long, equal, curved spurs; first hind tarsal joint as long as three following together.

Stigma large, about three times as long as broad, broadest

and subangulate at insertion of radius, this being a little before middle; first abscissa of basal vein somewhat swollen; first abscissa of radius about half length of second; second cubital cell more than twice longer than wide; first transverse cubital very oblique, second nearly vertical; recurrent vein joining cubitus a little before first transverse cubitus, intervening vein decolored; parallel vein inserted far below middle; submedian cell considerably longer than median.

LUZON, Laguna, Mount Maquiling (coll. *Baker*).

Genus **RHOGASELLA** novum

Eyes large, cheeks narrow, but malar space relatively large. Ocelli small, equidistant or the anterior somewhat removed. Vertex back of ocelli of medium size, longer than ocellar area and with or without an impressed median line. Antennæ longer than entire body; scape slender, little narrowed proximally, twice as long as wide; funicle longer than wide and half length of scape; flagellar joints twice as long as wide. Maxillary palpi longer than anterior femora, with third and fourth joints long, subequal, and terete.

Mesonotum strongly trilobed; notauli deep; posterior median area grooved and very narrow; scutellum bifoveate anteriorly, each fovea partially subdivided by a rudimentary carina. Metanotum sparsely rugose, with a short median carina anteriorly, behind passing into an irregular lozenge-shaped area, which may have an irregular median groove; midlateral areæ with slight prominences; spiracle large, elliptical, not raised. Disk of mesopleura with a broadly impressed, centrally crenulate, oblique groove.

Radial cell reaching apex of wing. Radius inserted near middle or at basal two fifths of the long, narrow stigma. First abscissa of radius about half length of second; second cubital cell twice as long as wide; first transverse cubitus oblique; second vertical and decolored. Recurrent vein inserted a short distance from apex of first cubital cell. Submedian cell as long as median on the median vein, transverse median vein interstitial with basal. Parallel vein inserted at lower third, but appearing interstitial by reason of the posterior vein being obsolete beyond second discoidal cell.

Abdomen sessile, longer than head and thorax together, narrowly elliptical in outline, with six fully exposed tergites in female; second tergite at apex wider than long and subequal to first, remainder subequal and about two thirds length of first;

first or first and second tergites, medially carinate; all tergites shallowly striate, the striæ on lateral portions of third, fourth, and fifth tergites somewhat oblique; second suture crenulately impressed and strongly curved; basal surfaces of fourth and fifth tergites strongly depressed. Hind tibial spurs short, straight, and pubescent.

Type, *Rhogasella straminea* sp. nov.

Synopsis of the species.

- α^1 . Ocelli set in a depressed area, the anterior not farther removed than distance between posterior; occipital margin (viewed from above) wide and deeply incurved; first and second tergites with a distinct median carina; dorsum of abdomen not medially piceous.... *straminea* sp. nov.
 α^2 . Ocelli not set in a depressed area, the anterior much farther removed than distance between posterior; occipital margin narrowed and nearly straight; first tergite only with distinct median carina; dorsum of abdomen medially piceous..... *lineata* sp. nov.

Rhogasella straminea sp. nov.

Antennæ and thorax ochraceous; head, abdomen, and legs stramineous; abdomen and tarsi distally darkened. A small mark at base of metanotum, interocellar area, and sutures of flagella piceous. Wings very faintly obscured, stigma and veins stramineous, the latter darker basally. Ovipositor ochraceous, longer than depth of last abdominal segment and hypopygium together.

Female, length, 5.5 millimeters.

Head viewed from above with large nonbulging eyes, which deeply enter head; vertex back of ocelli long and with a median incised line; occipital margin wide and broadly, deeply incurved; exposed margin of cheek as long as twice distance from ocelli to eyes, posterior length of vertex three times the latter distance; surface of vertex smooth and shining; ocelli small, seated in a depressed area, separated by a little less than their long diameter, the anterior not farther removed, the posterior slightly farther from eyes than their long diameter. Face subquadrate, as long as broad, subobsoletely, transversely, and irregularly punctate-striate; medially umbo-carinately raised just below antennæ; mouth opening narrow, subelliptical; clypeus with basal suture highly arched, apical margin less strongly curved; clypeal pits distant from eyes about twice their diameter. Head viewed from side with face margin strongly projecting, especially at antennæ, but very slightly curved at middle; ocellar area not raised; cheeks narrow, about one fourth the lower width of eyes, outer margin parallel to eye margin; malar

space long, its length about twice the lower width of cheek; eye large, its outline very broad and bluntly elliptical, but a little narrower on lower half. Maxillary palpi slender, terete, third and fourth joints long, subequal in length, and longer than fifth and sixth together. Antennæ longer than entire body, scape slender, little narrower at base, twice as long as wide; funicle narrower and half as long as scape; flagellar joints twice as long as wide.

Mesonotum deeply trilobed; median lobe strongly extended forward; notauli deeply impressed, straight, in part indistinctly crenulate, rapidly converging to hind margin, flanking a narrow, median basal area, which is provided with a lanceolate median groove having several indistinct cross rugæ; scutellum anteriorly bifoveate, foveæ rather long and narrow, median carina low and weak, and each fovea subdivided behind by a weak, rudimentary, median carina; posterior disk of scutellum smooth and shining. Postscutellum bifoveate medially, each fovea opening anterolaterally. Metanotum irregularly, sparsely rugose, a rudimentary median carina at base; median area with distinct outlines of a large, broad, lozenge-shaped area, which is rugose within and with an irregular, narrow, sharp-rimmed median furrow; from either angle of the lozenge-shaped median area a transverse carina passing to near the midlateral blunt prominence; spiracle large and elliptical, an irregular longitudinal carina passing beneath it; metapleura smooth anteriorly, indistinctly roughened posteriorly; mesopleura smooth and shining, disk with a broad, gradually depressed groove, which is medially obscurely crenulate.

Abdomen a little longer than head and thorax together, sessile, with six exposed tergites, gradually broadened to third segment; first segment suddenly narrowed near base, basal width about one third the apical, length one and one-third times the apical width; second tergite a little shorter than first, apical width a little greater than length; third to sixth tergites subequal in length and two thirds length of second, beyond third rapidly narrower, sixth truncate apically; all tergites longitudinally, shallowly striate, with interstriae shagreening, apically more finely so, striae not reaching hind margins of fourth, fifth, and sixth segments; striae somewhat oblique on lateral portions of third, fourth, and fifth tergites; first and second tergites with a distinct median carina; second suture strongly curved, impressed, and crenulate; fifth and sixth segments broadly depressed at base; hypopygium short but deep.

Stigma long and narrow, about five times as long as broad;

radius inserted at the proximal two fifths; first abscissa of radius about half length of second; second cubital cell about twice as long as wide; first transverse cubital oblique; second vertical and decolored; cubitus becoming obsolete shortly beyond second cubital cell; recurrent vein joining cubitus a short distance before first transverse cubitus, intervening vein decolored; parallel vein inserted at lower third, but appearing interstitial by reason of the posterior vein being obsolete beyond second cubital cell; transverse median vein interstitial with basal; radial vein in hind wing at one third of its length, strongly and suddenly curved toward costa, beyond this obsolete; nervellus oblique, slightly curved on upper half.

LUZON, Laguna, Los Baños (coll. *Baker*).

Rhogasella lineata sp. nov.

Antennæ and abdomen pale sordid ferruginous; flagellar sutures darkened; legs and tegulæ stramineous. A more or less distinct and in part subcontinuous, narrow, discal, piceous stripe on metanotum and abdominal dorsum. Interocellar area piceous. Palpi entirely decolored. Wings very slightly obscured, costa ochraceous, stigma stramineous, veins darkened. Ovipositor ochraceous, as long as depth of last exposed segment and hypopygidium together.

Female, length, 5 millimeters.

Head viewed from above with large nonbulging eyes, which deeply enter head; vertex very rapidly narrowing back of eyes, occipital margin very narrow; length of exposed cheek margin not twice distance of ocelli to eyes and less than distance from ocelli to occipital margin (which is nearly straight); entire surface of vertex, including area in front of ocelli, smooth and shining; ocelli small, distance from eyes a little more than half distance from occipital margin; anterior ocellus a half again as far from posterior ocelli as these are from each other, the latter nearer to each other than their long diameter and a little farther from eyes than their long diameter. Face subquadrate; broader than long; subobsoletely, transversely, and irregularly punctulate-striate; medially umbo-carinately raised just below antennæ; mouth opening narrow, subelliptical; clypeus transverse, basal and apical margin broadly curved and subparallel; clypeal pits distant from eyes about four times their diameter. Head viewed from side with face very strongly projecting, especially at antennæ, but very slightly curved at middle; cheek narrow, about one fourth the lower width of eye, outer margin parallel to eye margin; malar space long, twice the lower width

of cheek; eye large, its outline very broad and bluntly elliptical, but narrower on the lower half. Maxillary palpi slender, terete, third and fourth joints long, subequal in length and longer than fifth and sixth together. Antennæ longer than entire body, scape slender, little narrower at base, twice as long as wide; funicle narrower than scape and half as long; flagellar joints twice as long as wide.

Mesonotum deeply trilobed; median lobe strongly extended forward; notauli deeply impressed, straight, in part indistinctly crenulate, rapidly converging to hind margin, flanking a narrow median basal area, which is provided with a lanceolate median groove having several indistinct cross rugæ. Scutellum anteriorly bifoveate, foveæ rather long and narrow, median carina low and weak, and each fovea subdivided behind by a weak rudimentary median carina; posterior disk of scutellum oval, smooth, and shining. Postscutellum bifoveate medially, each fovea open anterolaterally. Metanotum irregularly rugose and with a rudimentary median carina at base; median area with partial outline of a large lozenge-shaped area, rugose within, but broken by three stout transverse rugæ; midlateral area with a blunt prominence; spiracle large, elliptical; a weak, irregular, longitudinal carina passing beneath spiracle; metapleura nearly smooth anteriorly, indistinctly roughened posteriorly; mesopleura smooth and shining, disk with a broad, gradually impressed groove on posterior two thirds, which is medially, obscurely crenulate.

Abdomen a little longer than head and thorax together, sessile, with six exposed segments, gradually broadened to third segment; first segment suddenly narrowed near base, basal width one third the apical, length subequal to apical width; second tergite subequal in length to first, apical width much greater than length; third to sixth tergites subequal in length and two thirds length of second, beyond third rapidly narrower, sixth truncate apically; all tergites longitudinally, finely, shallowly striate, with interstrial shagreening, striæ not reaching hind margins of fourth, fifth, and sixth segments; striæ somewhat oblique on lateral portions of third, fourth, and fifth tergites; only the first tergite with a distinct median carina; second suture connate, strongly curved, impressed, and crenulate; fifth and sixth segments broadly depressed at base. Hypopygium short and deep.

Stigma long and narrow, about five times as long as broad, radius inserted near the middle; first abscissa of radius about

half length of second; second cubital cell about twice as long as wide, first transverse cubital oblique, second vertical and decolored; cubital vein becoming obsolete shortly beyond second cubital cell; recurrent vein joining cubitus a short distance before first transverse cubitus, intervening vein decolored; parallel vein inserted at lower third, but appearing interstitial by reason of the posterior vein being entirely obsolete beyond second discoidal cell; transverse median vein interstitial with basal; radial vein in hind wing at one third of its length strongly and suddenly curved toward costa, beyond this obsolete; nervellus oblique, slightly curved on upper half.

LUZON, Laguna, Los Baños (coll. *Baker*).

Genus RHOGAS Nees

The numerous Philippine species of this well-known genus will be described in a subsequent paper.

Genus PSEUDOGYRONEURON novum

Eyes very large; malar space long, due to a strong narrowing of mouth. Vertex back of ocelli of medium length. Antennæ longer than entire body, scape short and swollen, funicle broad and three fourths length of scape, flagellar joints more than twice as long as wide. Maxillary palpi of great size, reaching to end of metanotum, third to sixth joints strongly modified, third swollen, fourth, fifth, and sixth flattened. Labial palpi with third joint elongate and flattened.

Scutellum quadrifoveate anteriorly. Metanotum with a narrow, lanceolate, high-rimmed median area and with strong, blunt prominences on the posterior lateral area; spiracles small and round. Disk of mesopleura with a short, oblique, noncrenulate furrow.

Radial cell reaching apex of wing. Radial vein inserted at basal two fifths of the length of the long, rather narrow, stigma. Thickened first abscissa of radius about half length of second; second cubital cell nearly twice as long as broad, not narrowed apically, both transverse cubiti more or less oblique. Recurrent vein inserted a short distance from apex of first cubital cell. Submedian cell a little longer than median. Parallel vein inserted at lower third. Radius of hind wings curved toward costa. Type, *Pseudogyroneuron mindanaensis* sp. nov.

Pseudogyroneuron mindanaensis sp. nov.

Stramineous, with piceous shading on lateral lobes of mesonotum anteriorly, on anterior portions of mesopleuræ, on pros-

ternum, on anterior portion of metanotum, and on scape and funicle; flagella piceous; interocellar area black. Wings faintly smoky, veins testaceous; media, basal, and first abscissa of radius darker; stigma pale, decolored anteriorly.

Female, length, about 5.5 millimeters.

Head viewed from above transverse, not rapidly narrowing behind, eyes strongly bulging beyond head outline; exposed cheek margin a little shorter than length of vertex back of ocelli; occipital carina subangulately bent; length of exposed cheek margin one third greater than distance from ocelli to eyes, interocellar distance less than the diameter of the large and strongly prominent ocelli and equaling about half the distance from ocelli to eyes; vertex back of ocelli smooth and shining; surface in front of anterior ocelli radiately wrinkled and not depressed.

Face very short, broader than long and broader below than above, medially slightly raised, smooth, with a few subobsolete punctures. Mouth opening very narrow. Clypeus transverse, smooth, upper and lower margins subparallel, the latter rather strongly impressed. Mandibles with outer surface roughened. Head viewed from side with face evenly curved; malar space very long, due to narrowing of mouth, its length somewhat greater than width of cheek below; cheek about one third of width of lower half of eyes, cheek margin subparallel to eye margin; eye very broad, subelliptical, and a little broader on lower half.

Maxillary palpi of great size, extending to end of metanotum; third to sixth joints strongly inflated; third as broad apically as posterior femora and slightly longer than depth of eye, subterete, strongly narrowed to base, slightly flattened toward lower edge; fourth as long as third, nearly as wide basally as third at apex, then narrowed apically; fifth, three fourths length of fourth and much narrowed, as broad apically as basally; sixth, two thirds length of fifth, much narrower and spindle-shaped in outline; fourth, fifth, and sixth segments much flattened; labial palpi reaching tegulae, fourth joint elongate and flattened.

Mesonotum trilobed, shining, slightly roughened, notauli deeply impressed anteriorly, broad and irregularly crenulate posteriorly, where they rather suddenly converge to a narrow, impressed, median basal groove. Scutellum anteriorly quadrifoveate, the separating carinae low; posterior disk of scutellum strongly convex and smooth. Postscutellum very shallowly bifoveate. Metanotum very coarsely, irregularly rugose; a strongly rimmed, narrowly lanceolate, median area with irregular

margins broken at several points by rugæ; posterior lateral areæ with strong, blunt prominences from which radiate rugæ; spiracle small and round; lateral carina complete, though irregular; metapleura smooth with a somewhat rugose median ridge posteriorly; mesopleura smooth and with a short, sharply impressed, oblique, noncrenulate discal furrow.

Abdomen longer than head and thorax together, sessile, broad, gradually widened to third segment; first segment but little wider at apex than at base, length about one and one-half times width at apex; second about as long as first but wider, gradually widening apically, length and apical width subequal; third much shorter than second and twice as wide as long; fourth, fifth, and sixth subequal in length, slightly shorter than third, and successively narrower; seventh segment very short, its hind margin slightly incurved, the subangulate point of eighth a little exposed; all tergites coarsely, sharply, longitudinally striate, minutely reticulate-punctate between the striæ; sculpturing on sixth segment distinct only at base; median carina distinct only on first two tergites; first suture impressed only at middle; second suture narrowly and slightly impressed; third, fourth, and fifth sutures deeply impressed and strongly crenulate. Hind tibiæ with two straight, hairy spurs, which are about as long as fourth tarsal joint.

Stigma long, rather narrow, about five times as long as wide, widest and obtusely angled at two fifths of length from base where radius is inserted; thickened first abscissa of radius about half length of second; second cubital cell nearly twice as long as wide, not narrowed apically; first transverse cubitus strongly oblique, second slightly so and decolored; first recurrent vein nearly straight, entering first cubital cell a short distance before apex; the parallel vein inserted at lower third; submedian cell a little longer than median. Radius of hind wings curved toward costa.

MINDANAO, Butuan (coll. *Baker*).

Genus **PARAGYRONEURON** novum

Eyes of medium size, malar space long, cheeks broad. Antennæ as long as body, scape large, one and one-half times as long as broad, funicle much narrower and not half as long; length of flagellar joints one and one-half times the width. Maxillary palpi normal, short and slender.

Scutellum bifoveate anteriorly, metanotum medially carinate on anterior half, a median lanceolate area on posterior half, surface very coarsely rugose and two strong prominences on

midlateral areae, which are extended into stout teeth; spiracle large and broadly elliptical. Mesopleura with a very large, deep, crenulated discal furrow on posterior half.

Radial cell reaching apex of wing. Radius inserted at basal two fifths of the large, long stigma. First abscissa of radius more than half length of second; second cubital cell not twice as long as wide, not narrower apically, and with both transverse cubiti oblique. Recurrent vein inserted near apex of first cubital cell. Submedian cell longer than median. Parallel vein inserted at lower fifth. Radius of hind wings curved toward costal; nervellus curved and bent at middle.

Abdomen broadly sessile, a little shorter than head and thorax together; first abdominal tergite very broad, length equaling apical width; remaining segments much broader than long; first and second tergites medially carinate. Hind tibial spurs stout, curved, and hairy.

Type *Paragyroneuron bicolor* sp. nov.

Paragyroneuron bicolor sp. nov.

Ochraceous; flagella black; hind tarsi and stigma piceous; scape and funicle obscure ferruginous. Wings basally with veins ochraceous; on and beyond basal vein smoky, veins dark, a piceous cloud along basal vein.

Female, length, 10 millimeters.

Head viewed from above with eyes suboval and very strongly bulging, vertex caudad of eyes smooth, gradually narrowed, very long, occipital carina very strongly raised; ocelli small, transparent, much nearer to each other than to eyes and twice as far from occipital carina as from eyes. Face long, narrower at lower margins of eyes, gently arched, surface smooth; eyes in front view kidney-shaped, strongly emarginate opposite antennæ. Head as viewed from side with malar space long; cheeks very broad, as broad as eyes, margin parallel to outer margin of eyes; eye outline semicircular.

Mesonotum smooth, notauli smooth, but anteriorly profoundly excavated; scutellum anteriorly with two large, suboval, smooth, deep foveæ, separated by a sharp median carina. Metanotum with coarse, wavy rugæ, becoming finely reticulate-rugose near anterior border, with a sinuous median carina splitting on posterior half, forming a lanceolate, wavy-margined, median area; rugæ separate, leaving smooth areae between the lanceolate median area and the large lateral teeth; numerous short rugæ radiately arranged about the base of each tooth; teeth large and bluntly tipped; spiracle broadly elliptical. Mesopleura

smooth, sparsely, shallowly punctate; with an oblique shallow furrow crossed by numerous short rugæ.

Abdomen very broad, broadly sessile; fourth and fifth segments slightly swollen; the second to fourth sutures broad, somewhat strongly constricted and crenulate; first segment about as broad as long and slightly narrower at base; second segment subquadrate, a little longer than first and a little broader than long; first and second segments coarsely, longitudinally rugose, medially carinate, and with a strong submedian carina, which on first segment at base becomes a ridge; third to fifth tergites more finely sculptured, becoming punctate-rugose. Hind tibial spurs very short, subequal, not as long as third tarsal joint; first tarsal joint slightly longer than next three together; second as long as third and fourth together.

Stigma very large, about three times as long as broad, lower margin evenly curved; radius inserted near middle; first abscissa of radius slightly more than half length of second; second cubital cell subtrapezoidal, less than twice as long as wide, both transverse cubitals oblique; recurrent vein inserted near apex of first cubital cell; parallel vein inserted far below, near to posterior vein. In hind wings, nervellus subangulately bent at middle.

LUZON, Benguet, Baguio (coll. *Baker*).

Genus *GYRONEURONELLA* novum

Eyes very large, malar space and cheeks relatively small. Ocelli of medium size. Vertex back of ocelli long. Antennæ longer than entire body. Maxillary palpi normal.

Head and mesonotum nearly smooth. Notauli distinct on disk of mesonotum; scutellum anteriorly bifoveate; postscutellum short and minutely bifoveate; metanotum without lateral prominences and medially with a lanceolate area; spiracles narrowly elliptical.

Radial cell reaching apex of wing. Radial vein inserted at two fifths length from base of the broad stigma. First abscissa of radius more than half length of second; second cubital cell twice as long as wide, abruptly narrowed at apex. Recurrent vein inserted some distance before apex of first cubital cell; submedian cell much longer than median and with the transverse median vein strongly curved and enlarged. Median vein normal. Parallel vein straight at insertion.

Abdomen longer than head and thorax together; terminal segments not retracted.

Type, *Gyroneuronella kokujewii* sp. nov.

Gyroneuronella kokujewii sp. nov.

Ochraceous, paler on lower part of head, pronotum, sternum, and basal segments of abdomen and darker on abdominal dorsum. Interocellar area black. Antennæ darker distally, to piceous at tips. Wings slightly suffused with smoky across middle third; veins ochraceous, except the dark stigma, basal vein, first abscissa of radius, and other veins across middle third of wing.

Female, length of body, 4.5 millimeters; of ovipositor, 1.

Head viewed from above with eyes large, but not strongly bulging; vertex back of ocelli long, occipital carina strongly but regularly incurved, length of exposed cheek margin twice distance from eye to ocelli and distinctly less than distance from ocelli to occipital margin; surface of vertex smooth and shining, with a distinct median impressed line from ocelli to occipital margin; ocelli of medium size, distance between them slightly less than distance from ocelli to eyes, the latter distance subequal to diameter of an ocellus, distance to occipital margin about the diameter of an ocellus; surface in front of anterior ocellus smooth. Face subquadrangular, a little longer than wide, above broadened somewhat toward emargination of eyes; surface obscurely roughened and gently arched; mouth opening small and narrow, lower margin of clypeus nearly straight. Head viewed from side with face rather strongly prominent below antennæ; cheeks narrow, barely one fourth width of eye, slightly narrowed above; malar space very small, length distinctly less than width of cheeks below; eye very large, its outline very broadly subelliptical.

Mesonotum smooth, shining; notauli shallow and coarsely crenulate, but little impressed anteriorly, posteriorly reaching hind margin at sides of the broad, rugose, median depressed area. Scutellum anteriorly with two very large, smooth foveæ, with a strong, median, separating carina; posterior disk of scutellum as long as broad at base, very gradually narrowed to the rounded apex. Metanotum with a narrow, percurrent, sharp, but irregular, margined, median area, which is acute anteriorly and parallel-sided posteriorly; each lateral area with several more or less distinct longitudinal rugæ converging toward petiolar margin; an irregular, sinuous, partially crenulate, longitudinal furrow below the narrowly elliptical spiracle; metapleura and mesopleura shining, the latter with a short, deep, oblique, discal furrow.

Abdomen a little longer than head and thorax together, sub-

sessile, and gradually widening to third segment; first segment three times wider apically than basally, length but slightly greater than apical width; second segment very slightly wider at apex than at base, its length subequal to that of first, and a little more than half apical width; third to sixth segments short, transverse, two thirds to three fourths length of second, somewhat swollen, and progressively narrower; all tergites somewhat irregularly but evenly, longitudinally striate, except toward apex of sixth segment; first and second tergites with distinct median carinæ; first suture slightly impressed at middle, second to fifth sutures rather deeply constricted and crenulate. Hind tibiae with two straight, equal spurs, which are about as long as fourth tarsal joint; first hind tarsal joint subequal in length to next two together.

Stigma large and wide, about four times as long as wide, subangulate at two fifths of length from base where radius is inserted; first abscissa of radius distinctly more than half length of second; second cubital cell about twice as long as high, narrowed at apex, first transverse cubitus very oblique, second vertical and white; recurrent vein joining cubitus a distance of more than half the length of first transverse cubitus from apex of first cubital cell, intervening vein decolored; parallel vein inserted at middle; submedian cell much longer than median, strongly rounded apically, the curved transverse median vein as well as adjoining portions of median and posterior veins, greatly enlarged.

LUZON, Laguna, Los Baños (coll. *Baker*).

Named for Mr. N. R. Kokujew, a well-known Russian student of the Ichneumonoidea.

Genus *HEMIGYRONEURON* novum

Eyes very large, malar space and cheeks relatively small. Ocelli very large, subapproximate to eyes. Vertex back of ocelli very short. Antennæ shorter than body. Maxillary palpi normal.

Head and mesonotum coarsely sculptured; notauli obsolete on disk of mesonotum; scutellum anteriorly multifoveate; postscutellum large and multifoveate. Metanotum without lateral prominences and medially carinate, spiracles round, oval, or broadly elliptical.

Radial cell reaching apex of wing. Radial vein inserted at two fifths length from base of the broad stigma. First abscissa of radius half length of second or less; second cubital cell twice as long as wide or less, not abruptly narrowed at apex. Recurrent

vein inserted very near apex of first cubital cell or at some distance from it; submedian cell much longer than median and with the transverse median vein strongly curved and enlarged, together with postmedian and apical third of median, the last angulated at juncture with normal portion of median. Parallel vein strongly curved at insertion.

Abdomen not or very little longer than head and prothorax together, terminal segments more or less retracted.

Type, *Hemigyron neuron speciosus* sp. nov.

Synopsis of the species.

- a*¹. Notauli entirely obsolete; posteromedian mesonotal area without longitudinal groove; face carinate on upper half; body extensively ornamented with black; antennæ banded..... *speciosus* sp. nov.
*a*². Notauli distinct only on anterior border of mesonotum; posteromedian mesonotal area with a deep, strongly rimmed, longitudinal groove; face carinate on lower half; body without black, except between ocelli; antennæ not banded..... *suffusus* sp. nov.

Hemigyron neuron speciosus sp. nov.

Ochraceous, extensively ornamented with black. Antennæ piceous, middle third stramineous, apical third paler than basal; clypeus and entire vertex black. Thorax black as follows: A spot on propleura, lateral area of mesonotum, middle area extending back in a sharp point on basal two thirds, scutellum, sides of postscutellum, entire metanotum, upper anterior angle and lower half of mesopleura, and mesosternum. Hind coxæ, except tips, piceous. Abdomen with a transverse black band on middle third of first tergite, basal halves of remaining segments black; third and following segments apically sordid stramineous. Fore and middle legs, except coxæ, pale ferruginous, coxæ stramineous; hind femora ferruginous, their trochanters, basal two thirds of tibiæ, and tarsi stramineous; apical third of hind tibiæ piceous. Wings iridescent and faintly smoky, costa and stigma ochraceous, veins dark smoky, those on basal half of wing much darker.

Male, length, 9 millimeters.

Head viewed from above, narrowly transverse, eyes very large and extending far into vertex; vertex caudad of ocelli very short, occipital carina deeply, but very broadly, incurved; length of exposed cheek margin many times the distance from eye to ocelli and distinctly more than distance from ocelli to occipital margin; surface of vertex rugose-shagreened; ocelli of great size, the two posterior set in impressed, rimmed pits, the anterior slightly raised and strongly directed forward; ocelli very close to each

other and to eyes, the latter distance being about one fourth the distance from ocelli to occipital carina, the last distance being less than the diameter of an ocellus; surface in front of anterior ocellus shagreened.

Face longer than wide, broader above than below on account of the deeply emarginated eyes; surface not strongly raised, entirely, transversely rugose and with a low median carina on upper half; clypeus very large, but narrow, strongly semilunate, its surface reticulate-rugose; mouth opening subcircular; outer surface of mandibles longitudinally rugose to near apices. Head viewed from side with face a little prominent below antennæ; cheek narrow, barely one fourth width of eyes, cheek margin parallel to eye margin; length of malar space greater than width of cheek; both malar space and cheek finely rugose; eye outline irregularly subelliptical, broader at lower half, lower end more narrowly rounded than upper.

Mesonotum full and broadly arched, finely rugose-shagreened, slightly depressed lines marking position of notauli anteriorly; posteromedian depressed area shallow, elongate, and finely rugose. Scutellum anteriorly with six small, subequal foveæ, separated by equally strong longitudinal carinæ; posterior disk of scutellum subtriangular, bluntly pointed, surface finely rugose-shagreened; postscutellum large, sexfoveate, foveæ separated by equally strong longitudinal carinæ, two central foveæ twice as broad as lateral foveæ. Metanotum entirely coarsely reticulate-rugose and shagreened, and with a sharp median carina on basal half; spiracle large, broadly elliptical, standing above a sharp, sinuate, longitudinal carina, this carina flanking, just below, a narrow crenulate furrow; metapleura discally, concentrically, finely rugose, upper anterior angle reticulate-rugose and shagreened; mesopleura with disk not furrowed, but concentrically, finely rugose, upper anterior angle coarsely reticulate-rugose.

Abdomen slightly longer than head and thorax together, broadly sessile, gradually widening to third segment, remaining segments rapidly narrower and together not longer than third segment; first segment two thirds as broad basally as apically, length one and one-third times the apical breadth; second segment gradually broadened apically, length less than apical width and three fourths the length of first segment; third segment a little broader and three fourths the length of second, the length subequal to one half width; remaining segments all very short, fifth longest, all smooth and shining; first and second tergites and base of third tergite finely longitudinally rugose and medially carinate, rugæ on third tergite posteriorly oblique, curving

away from median line; first suture slightly impressed; second suture narrowly, but more deeply, impressed and crenulate. Hind tibiae with two large, stout, straight spurs, the inner the longer, this spur as long as second tarsal joint.

Stigma large and wide, about four times as long as wide; subangulate at two-fifths of length from base, where radius is inserted; first abscissa of radius distinctly more than half length of second; second cubital cell twice as long as high, not at all narrowed to apex, first transverse cubital very oblique, second vertical and decolored; recurrent vein joining cubitus a distance before second cubital cell of half length of first cubital cell, intervening vein decolored; parallel vein inserted at lower third and strongly curved just before insertion; submedian cell much longer than median, subangularly rounded at apex; the straight transverse median vein, the postmedian, and apical third of median vein enlarged, the median being angularly bent at beginning of normal portion.

LUZON, Laguna, Mount Banahao (coll. *Baker*).

Hemigyron neuron suffusus sp. nov.

Ferruginous, antennae darkened toward tips, legs slightly paler. Interocellar space piceous. Wings suffused with pale ochraceous, veins ochraceous; stigma entirely concolorous; apex of basal vein, basal curved part of parallel vein, and adjoining portion of recurrent piceous.

Male, length, 7 millimeters.

Head viewed from above rather broadly transverse, eyes very large and strongly bulging; vertex caudad of ocelli very short and rapidly narrowed caudad, occipital carina deeply but evenly incurved; length of exposed cheek margin twice the distance from ocelli to eyes or from ocelli to occipital margin, the last two distances being subequal; surface of vertex shallowly rugose; ocelli of great size, set on a slight eminence, separated by less than half their diameter, which is about twice the distance to eyes or to occipital carina; surface in front of anterior ocellus smoothly excavated.

Face longer than wide, rapidly broadened above to the deep emargination of eyes; surface irregularly, transversely rugose, raised at middle, thence to clypeal border, medially, sharply carinate; clypeus with a narrow, rimmed depression on either side, which gradually broadens toward anterior margin; basal suture of clypeus very strongly, narrowly arched and impressed; surface of clypeus rugose; mouth opening small, narrow, subcircular; outer surface of mandibles minutely, longitudinally striate

to near apices. Head viewed from side with face margin evenly and gently curved below antennæ, but with clypeus abruptly elevated; cheeks narrow, below scarcely one fifth the width of eye, broader above; length of malar space one and one-half times width of cheek, transversely rugose; eye much broader on lower half.

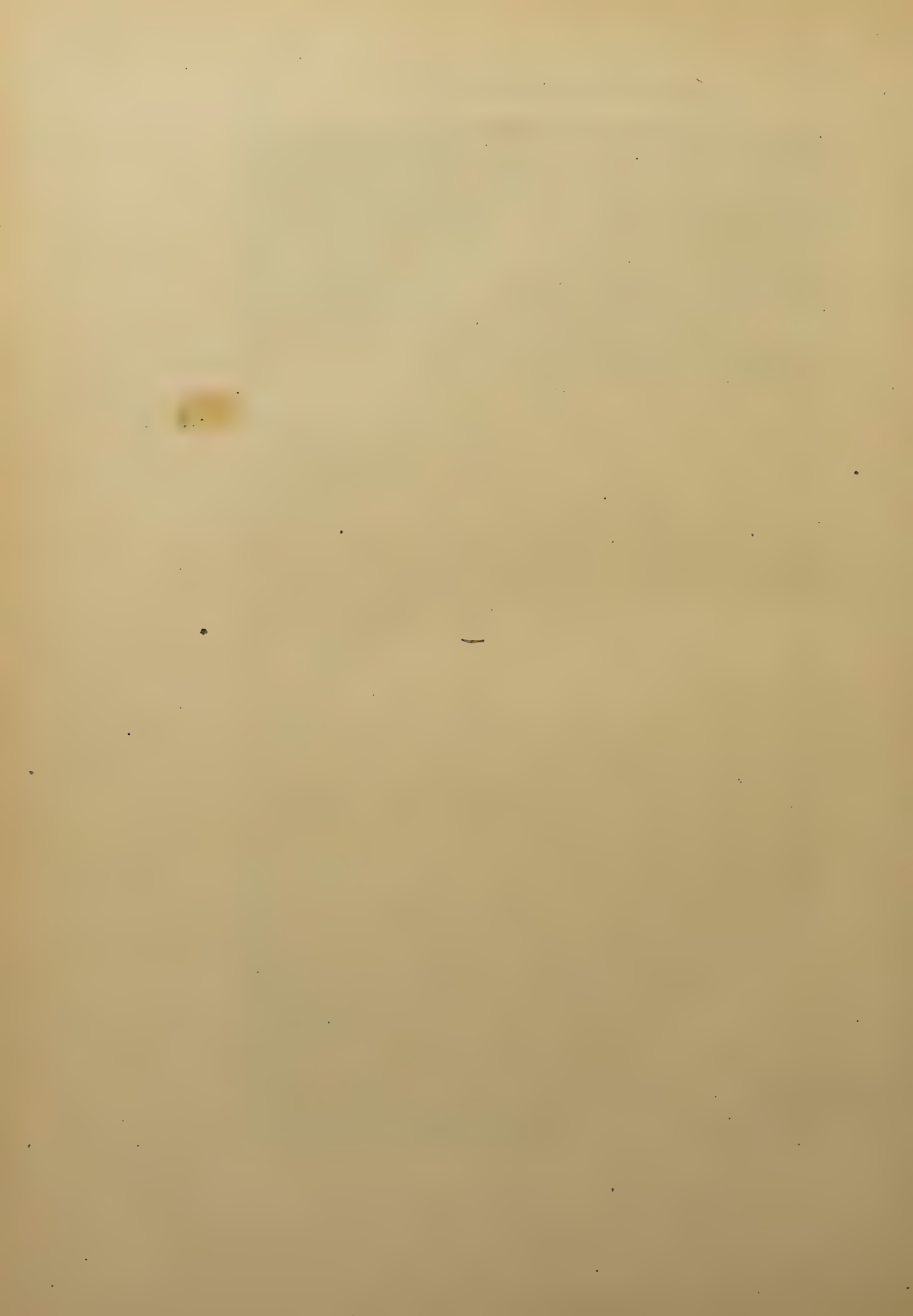
Mesonotum full and broadly arched, thickly and finely rugose, with a suggestion of shagreening, but slightly impressed on anterior margin at notauli; notauli faintly indicated by coarser rugæ; posteromedian area occupied by a broad, sharp-rimmed furrow, which is cross-striate within. Scutellum anteriorly with six small foveæ (the outer broader), separated by equally strong longitudinal carinæ; posterior disk of scutellum finely rugose and oval, the point obliquely flattened and smoother; postscutellum large, two large deep foveæ at middle, two others on each side much shallower, all separated by longitudinal carinæ. Metanotum coarsely reticulate-rugose, with a sharp, complete, median carina which is posteriorly sinuous; two large, submarginal, irregular foveæ near posterolateral angles on either side; spiracle oval, a strong, continuous, longitudinal, lateral carina passing immediately below it; metapleura coarsely rugose, a small area at center smooth, two small, sharply rimmed areas at anterior angle; mesopleura with anterior third coarsely rugose, remainder nearly smooth and with large, scattering punctures, beneath wing with a broad vertical depressed area, which is strongly rimmed on anterior border.

Abdomen nearly as long as head and thorax together, broadly sessile, gradually broadening to third segment; remaining segments rapidly narrowed and retracted, so that only their borders are exposed, together about as long as third segment; first segment four fifths as wide basally as apically, length slightly more than apical breadth; second segment slightly broadened to apex, subequal to first in length, its width and length subequal; third segment slightly broader than second and three fourths its length, its length less than half its apical width; first and second tergites and basal three fourths of third coarsely, longitudinally rugose, with a strong, continuous, median carina reaching on to basal half of third tergite; remaining tergites smooth, shining, and decolored; first suture strongly, sharply depressed, second less so and weakly crenulate. Hind tibiæ with two stout, straight spurs, the inner longer, about as long as third tarsal joint.

Stigma large, wide, about four times as long as wide, widest at two fifths of length from base, where radius is inserted;

first abscissa of radius less than half the length of second; second cubital cell more than twice as long as wide, distinctly narrowed toward apex; first transverse cubital very oblique, decolored, and a little curved; second vertical and colored; recurrent vein curved and joining cubitus a very short distance from apex of first cubital cell, intervening vein not decolored; parallel vein inserted at lower two fifths and strongly curved just before insertion; submedian cell much longer than median, strongly rounded at apex; curved transverse median, curved postmedian, and apical third of median greatly enlarged, the median being angularly bent at beginning of normal portion.

MINDANAO, Davao (coll. *Baker*).



NITIDULIDÆ (COLÉOPTÈRES) DES ILES PHILIPPINES
RÉCOLTÉS PAR C. F. BAKER, II

Par A. GROUVELLE

(Paris, France)

Brachypeplus (Selis) decoratus sp. nov.

Ovatus, circiter ter longior quam in maxima latitudine latior, modicissime convexus, nitidulus, capite prothoraceque glaber, abdomine tenuissime flavo-pubescent rufo-testaceus; antennarum clava capiteque infuscatis; prothoracis margine basilari medio, scutello elytrorum marginibus suturalibus anguste, lateralibus sat late, apicalibus late nigris; abdominis tribus ultimis segmentis disco subnigris vel fortiter infuscatis. Caput transversissimum convexiusculum crebre punctatum; epistomo subquadrato, convexo, antice truncato, postice a fronte sulco arcuato, vix integro, separato; oculis mediocriter productis, oris internis antice fortiter convergentibus. Prothorax convexiusculus, antice quam postice magis angustatus, lateribus arcuatus, in maxima latitudine plus duplo latior quam longior, crebre et capite paulo minus valide punctatus; margine antice truncato; angulis anticis rotundatis; marginibus lateralibus anguste marginatis; angulis posticis obtusis; basi truncata quam lateribus magis tenuiter marginata. Scutellum semiorbiculatum, crebre punctulatum. Elytra parallela, simul latiora quam longiora, apice latissime separatim arcuata, lineato-punctulata, linearum intervallis sat tenuiter bilineato-punctatis; marginibus lateralibus praecipue ad apicem anguste marginatis. Abdominis segmenta crebre punctulata; ultimo apice subinflexo, obtuse acuminato.

Longueur, 5.5 millimètres.

Ovale, atténué vers l'extrémité de l'abdomen, environ trois fois plus long que large dans sa plus grande largeur, médiocrement convexe, assez brillant, glabre sur la tête et le prothorax, couvert sur l'abdomen d'une pubescence flave, très fine et très courte; roux testacé; tête et massue des antennes enfumées; milieu de la marge basilaire du pronotum, écusson, marges suturales des élytres étroitement, marges latérales largement, marges apicales encore plus largement noirs; disque des segments abdominaux plus ou moins noirâtres. Antennes courtes; 1^{er} article

arqué, dilaté en-dedans; massue à peine plus longue que large; articles serrés, le dernier plus étroit que le précédent, terminé par un bouton acuminé; 8^{me} article de l'antenne très transversal, amorçant la massue. Tête légèrement convexe, deux fois plus large au niveau des yeux que longue, très densément et finement ponctuée sur le front, très finement sur l'épistome; celui-ci assez convexe, saillant, en forme de rectangle, s'avancant au milieu de la marge antérieure, en avant des bases des antennes, séparé du front par une impression arquée, s'étendant entre les bases des antennes, très marquée vers celles-ci, effacée au milieu. Yeux peu saillants, allongés, leurs bords internes très convergents; angles postérieurs aigus; tempes très petites, labre bien visible. Prothorax assez convexe, plus rétréci en avant qu'à la base, arqué sur les côtés, présentant sa plus grande largeur vers le premier tiers de la longueur à partir de la base, très nettement plus de deux fois plus large dans cette plus grande largeur que long, couvert d'une ponctuation un peu plus forte que celle de la tête, très serrée, subrugueuse vers les côtés. Bord antérieur subtronqué; angles antérieurs arrondis; côtés bordés par un fin bourrelet s'étendant sur l'angle antérieur et par une cannelure étroite; angles postérieurs obtus; base tronquée, bordée plus étroitement que les côtés. Ecusson presque demi circulaire, très densément et finement pointillé. Elytres subtronqués à la base, brièvement arrondis aux épaules, parallèles, largement arrondis aux angles apicaux externes, très largement et séparément arqués au sommet, environ une fois et un sixième plus larges ensemble que longs, assez finement striés-pointillés; intervalles des stries présentant chacun deux lignes de points plus forts que ceux des stries. Marges latérales pliées, infléchies, bordées par un fin bourrelet, se continuant en s'atténuant sur la marge apicale et par une cannelure assez marquée à la base, élargie vers le milieu de la longueur, atténuée vers le sommet. Segments de l'abdomen très densément pointillés; le dernier terminé en angle très obtus. Dessous roux testacé; sternites impressionnés sur les côtés; dernier subtronqué à l'extrémité. Sillons antennaires très convergents.

LUZON, Benguet, Baguio (*Baker*), 1 exemplaire mâle, collection A. Grouvelle.

Brachypeplus denticeps sp. nov.

Oblongus, circiter quater longior quam in maxima latitudine latior, mediocriter convexus, opaculus, subtilissime flavocinereopubescens, ater; antennis pedibusque plus minusve dilute rufopiceis; prothoracis marginibus lateralibus anguste rufescentibus.

Caput transversissimum, fronte sub depressum et crebre punctatum; punctis sat validis, haud profundis; epistomo antice truncato, utrinque sinuato vix punctulato, transversim subconvexo, basi utrinque impresso; oculis modice productis, oris internis antice sat fortiter convergentibus; angulis posticis fortiter acuto-productis. Prothorax transversim convexiusculus, antice angustatus, basi subparallelus, plus duplo latior quam longior, crebre punctatus; punctis sat validis, tenuiter impressis, ex parte confluentibus; margine antico truncato, anguste pulvinato marginato; angulis anticis rotundatis; marginibus lateralibus sublato concavo-explanatis; angulis posticis breviter rotundatis; basi striato-marginata, medio truncata, extremitatibus retrorsum vix inflexa. Scutellum transversissimum, subpentagonale, parallelum, convexiusculum, tenuissime punctulatum. Elytra subparallela, apicem versus vix perspicue ampliata, angulis posticis rotundata, apice separatim vix arcuata, paulo longiora quam simul latiora, lineato punctata; intervallis linearum angustis, subasperis, vix perspicue striatis. Abdominis ultimum segmentum vix longior quam latior, transversim subconvexum, lateribus sublato marginatum.

Longueur, 4 millimètres.

Oblong, environ quatre fois plus long que large dans sa plus grande largeur, médiocrement convexe, presque opaque, très faiblement pubescent, noir; antennes, sauf la massue et le premier article qui sont plus foncés, roux de poix; pattes plus ou moins brun de poix, tarses plus clairs, marges latérales du prothorax rougeâtres. Antennes courtes; 1^{er} article transversal, fortement dilaté arrondi en dedans; massue à peine plus longue que large, articles serrés, le dernier plus étroit que le précédent, terminé par un bouton acuminé. Tête subdéprimée, plus de deux fois plus large au niveau des yeux que longue, couverte sur le front d'une ponctuation assez grosse, superficielle, très serrée, lui donnant un aspect un peu rugueux; épistome tronqué en avant, sinué de chaque côté jusqu'à la base de l'antenne, transversalement subconvexe, à peine ponctué, assez fortement impressionné de chaque côté de la base, vers la naissance de l'antenne; angles postérieurs de la tête très aigus et très saillants; yeux peu saillants, allongés, leurs bords internes convergents. Base de la tête tronquée, un peu saillante, en arrière, aux extrémités, en forme de lobe arrondi. Prothorax transversalement subconvexe, rétréci en avant, parallèle dans sa partie basilaire, très nettement plus de deux fois plus large vers la base que long, couvert d'une ponctuation semblable à celle de la tête mais plus forte. Bord antérieur tronqué, bordé par un étroit bourrelet plus accen-

tué vers les extrémités; angles antérieurs arrondis, marges latérales assez largement explanées-concaves, s'étendant sur les angles antérieurs et postérieurs; ceux-ci émoussés; base striée-rebordée, tronquée, légèrement infléchie en arrière aux extrémités. Ecusson plus de deux fois plus large à la base que long, parallèle, en angle largement obtus au sommet, légèrement convexe, très finement pointillé. Elytres légèrement arqués à la base, brièvement arrondis aux épaules, droites sur les côtés, à peine élargis vers le sommet, fortement arrondis aux angles apicaux externes, séparément et très faiblement arrondis au sommet, environ une fois et un cinquième plus longs que larges ensemble vers le sommet, assez fortement ponctués en lignes infléchies en dedans; intervalles des stries très finement chagrinés, à peine visiblement striés, points des lignes ponctués-serrés, assez profonds, atteignant presque le sommet. Marges latérales infléchies plus fortement sur les régions humérales et apicales, bordées par un fin bourrelet, que se prolonge, sur les marges apicales des élytres, en restant légèrement au-dessous de leur surface. Segments de l'abdomen densément ponctués; dernier segment à peine plus long que large, largement émoussé à l'extrémité, bordé de chaque côté par une carène peu accentuée. Dessous brun de poix, un peu brillant, très finement pointillé; segments 3 et 4 étroitement bordés de flave au sommet, 2, 3 et 4 impressionnés de chaque côté.

LUZON, Tayabas, Malinao (*Baker*), 1 exemplaire femelle, collection A. Grouvelle.

Voisin comme aspect général de *B. hispidulus* Grouv.

Brachypeplus marginellus sp. nov.

Oblongo-elongatus, plus quater longior quam in maxima latitudine latior, modicissime convexus, nitidus, glaber, rufulus; capite, elytrorum apice et marginibus reflexis plus minusve subinfuscatis. Caput transversum, fronte convexiusculum et dense punctulatum; epistomo ante antennarum bases anguloso-producto, apice hebetato, subtiliter punctulato; oculis mediocriter productis, oris internis subrectis, antrorsum mediocriter convergentibus; temporibus minutis, angulis posticis acutis. Prothorax transversim convexus, antice quam postice vix angustatus, lateribus modice arcuatus, circiter in maxima latitudine sesquialior quam longior, quam caput validius punctatus, punctis ad latera attenuatis; margine antico vix perspicue sinuato; extremitatibus breviter retorsum inflexo; angulis anticis modice obtusis; marginibus latéralibus canaliculo et pulvino angustis marginatis; angulis posticis vix obtusis; basi subtruncata, extremitatibus

subtiliter marginata. Scutellum triangulare, transversum, punctatum. Elytra fere parallela, apicem versus vix ampliata, angulis posticis breviter rotundata, apice separatim vix oblique truncata, circiter 1 et $\frac{1}{5}$ longiora quam simul in maxima latitudine latiora, lineato-punctata; lineis dorsalibus paulo ante apicem evanescentibus, margine apicali subtilissime punctulato; linearum punctatorum intervallis quam punctis multo latioribus. Abdomen subtiliter punctulatum; ultimo segmento paulo elongato, apice late hebetato.

Longueur, 4 millimètres.

Oblong, plus de quatre fois plus long que large dans sa plus grande largeur, médiocrement convexe, brillant, glabre, rougeâtre; tête, massue des antennes, moitié apicale et extrêmes marges latérales des élytres, un peu assombries. Antennes assez courtes; 1^{er} article arqué, dilaté, arrondi en-dedans, 4^{me} à 8^{me} s'épaississant progressivement, 7^{me} et surtout 8^{me} très transversaux; massue piriforme, environ une fois et un tiers plus longue que large, dernier article à peine plus étroit que le précédent, légèrement séparé du suivant, terminé par une partie acuminée, très surbaissée. Tête assez convexe, environ deux fois plus large avec les yeux que longue, densément pointillée sur le front, très légèrement impressionnée de chaque côté vers la base de l'antenne; épistome saillant anguleusement en avant des bases des antennes, à peine sinuée sur les côtés, émoussé au sommet, très finement pointillé; yeux peu saillants, allongés, échancrant à peine les marges du front; leurs bords internes médiocrement convergents. Prothorax transversalement subconvexe, un peu plus rétréci en avant qu'à la base, médiocrement arqué sur les côtés, présentant sa plus grande largeur vers le milieu de la longueur, environ une fois et demie plus large dans sa plus grande largeur que long, plus fortement ponctué que le front. Bord antérieur à peine sinué, brièvement et un peu obliquement réfléchi en arrière aux extrémités; angles antérieurs médiocrement obtus; marges latérales infléchies, subpliées, bordées par un fin bourrelet et par une étroite cannelure; angles postérieurs faiblement obtus; base subtronquée, finement rebordée. Ecusson triangulaire, environ deux fois plus large que long, subégal à la base au tiers de la largeur des élytres, assez éparsement pointillé. Elytres subarqués ensemble à la base, en angles obtus aux épaules, alors à peu près aussi larges ensemble, que le prothorax dans sa plus grande largeur, droites sur les côtés, à peine visiblement élargis vers le sommet, arrondis aux angles apicaux externes, séparément et un peu obliquement subtronqués au sommet, environ une fois et un cinquième plus longs que larges ensemble

dans la plus grande largeur, assez finement ponctués en lignes; lignes ponctuées arrêtées près du sommet, laissant libre une marge très finement pointillée; intervalles des lignes ponctués, plans, beaucoup plus larges que les points; marge apicale très étroitement subinfléchie, finement rebordée; marges latérales lisses, infléchies, à peine pliées, très infléchies au dessous du calus huméral. Segments de l'abdomen très finement et peu densément pointillés; dernier segment à peine plus long que large, largement émoussé au sommet; carènes latérales à peine marquées, réduites presque à de simples lignes. Dessous du corps roux fauve, finement et peu densément pointillé. Tibias antérieurs armés à l'angle apical externe de deux petites épines séparées.

LUZON, Laguna, Mont Maquiling (*Baker*), 1 exemplaire femelle, collection A. Grouvelle.

Appartient au même groupe que *B. nitidus* Grouv. de Sumatra.

Ithyphenes bakeri sp. nov.

Elongatus, antice paulo latior, depressus, nitidus, glaber, rufo-testaceus; elytris praeter basin nigris; mandibulis et abdominis ultimis segmentis infuscatis. Caput transversum, fronte subconvexiusculum, in disco tenuiter et plus minusve, parce, antice paulatim tenuissime punctulatum; margine antico medio quadrato-producto et utrinque bi-sinuato; epistomo antice breviter fortiter que impresso, basi in longitudinem sulcato. Prothorax transversus, basin versus angustatus, plus minusve parce punctulatus; margine antice modice arcuato, extremitatibus vix sinuato; angulis anticis vix obtusis, hebetatis; lateribus antice arcuatis, subparallelis, postice rotundatis; angulis posticis vix perspicue indicatis, late rotundatis; basi truncata; marginibus lateralibus anguste rotundato-inflexis. Scutellum subtriangulare, transversissimum. Elytra circiter 1 et $\frac{1}{4}$ longiora quam simul latiora, angulis postico-externis latissime rotundatis, apice subtruncata, validius quam prothorax et plus minusve parce punctulata; punctis apicem versus attenuatis, ad basin in lineas inaequalissimas dispositis. Abdominis ultimum segmentum subdense punctulatum.

Longueur, 8.5 millimètres.

Environ cinq fois plus long que large, un peu atténué vers l'arrière, déprimé, brillant, glabre, roux testacé; élytres noirs, sauf une large bande basilaire; mandibules, extrême marge antérieure de la tête et dernier sternites enfumés. Antennes courtes; massue forte, brusque, environ une fois et demie plus longue que large; 1^{er} article légèrement séparé des suivants. Tête environ une fois et un quart plus longue que large, très

légèrement convexe sur le disque; plus ou moins éparsement ponctuée, encore plus finement sur la marge antérieure; intervalles des points à peine visiblement et très éparsement pointillés; tempes arquées, subparallèles, très allongées; côtés entre les yeux et la base des antennes très convergents; bord antérieur saillant en forme de rectangle au milieu, bisinué de chaque côté; 1^{er} sinus entre la saillie de l'épistome et la mandibule, prolongé en arrière par une impression; 2^{me} entre le bord interne de la mandibule et la naissance de l'antenne, fortement infléchi en avant; épistome fortement infléchi, brièvement redressé, explané en avant, saillant en angle obtus, longitudinalement et brièvement sillonné sur sa partie basilaire; marges latérales fortement infléchies; yeux petits, un peu saillants, latéraux. Prothorax très rétréci à la base, un peu plus de deux fois plus large dans sa partie antérieure que long, environ aussi large dans cette partie que la tête, couvert d'une ponctuation fine, irrégulièrement éparse. Bord antérieur très faiblement arqué, à peine subsinué aux extrémités, très finement rebordé de chaque côté; angles antérieurs faiblement obtus, émoussés; côté subparallèle, faiblement arqué dans la partie antérieure, fortement arrondi dans la partie basilaire; marges latérales très fortement infléchies, très finement rebordées, cachées dans la partie antérieure lorsque l'insecte est vu de dessus; angles postérieurs presque complètement effacés, largement arrondis; base tronquée, rebordée. Ecusson subtriangulaire, environ deux fois et demie plus large à la base que long; presque lisse. Elytres infléchis un peu obliquement de chaque côté de l'écusson, brièvement arrondis aux épaules, alors plus étroits que le prothorax dans sa plus grande largeur, droits sur les côtés, faiblement élargis vers le sommet, très largement arrondis aux angles postérieurs-externes, très largement arrondis ensemble au sommet, environ une fois et un quart plus longs que larges ensemble dans leur plus grande largeur, couverts d'une ponctuation un peu plus forte et plus serrée que celle du prothorax, atténuée vers le sommet, disposée en lignes très irrégulières sur la partie basilaire; marges latérales fortement infléchies surtout à la base, finement rebordées. Segments abdominaux progressivement plus densément et plus fortement pointillés vers l'extrémité. Dernier sternite un peu plus large que long, arrondi au sommet.

LUZON, Tayabas, Malinao (*Baker*), 1 exemplaire femelle, collection A. Grouvelle.

Vient se placer à côté de *I. ustipennis* Fairm. dans le tableau publié.¹

¹ *Rev. d'Ent.* (1908), 26, 3.

Platynema angusta sp. nov.

Subparallela, circiter septies longior quam in maxima latitudine latior, subdepressa, nitida, praeter abdominis marginibus lateralibus glaber, rufo-testaceus, vix perspicue infuscatus; antennarum clava, elytris praeter marginem basilarem et abdominis segmento ultimo plus minusve infuscatis. Caput sesquilongius quam latius, ante antennarum bases subparallelum, antice utrinque transversim truncatum, medio subinflexum, quadrato-productum et sat profunde sinuatum, in medio frontis disco subdense punctatum, punctis circum antennatis. Prothorax subelongatus, lateribus arcuatus, postice quam antice angustior, transversim modice convexus, parce tenuiterque punctulatis, in longitudinem vix striatus; margine antico truncato; angulis anticis obtusis, posticis late rotundatis; basi vix arcuata, extremitatibus impressa. Scutellum latissimum, transversissimum, apice late obtuse angulosum. Elytra apicem versus aliquid ampliata, sesquilongia quam simul in maxima latitudine latiora, apice separatim latissime subarouata, punctato-striata; striis prope apicem evanescentibus, punctis fortiter attenuatis; angulis posticis rotundatis. Abdominis ultimum segmentum elongatum, apice rotundatum, dense punctatum, lateribus subconcauum.

Longueur, 5.5 millimètres.

Subparallèle, environ sept fois plus long que large dans sa plus grande largeur, subdéprimé, brillant, glabre sauf des poils flaves, plus ou moins dressés, insérés sur les marges latérales des élytres et de l'abdomen; roux testacé; massue des antennes, une très large bande au sommet des élytres et dernier segment de l'abdomen plus ou moins enfumés. Antennes courtes; massue forte, brusque, plus d'une fois et demie plus longue que large; 1^{er} article légèrement séparé du second. Tête environ une fois et demie plus longue que large, subrectangulaire entre la base et la naissance des antennes, déprimée sur le front, couverte d'une ponctuation fine, plus forte sur le disque que sur les côtés; bord antérieur transversalement tronqué contre les bases des antennes, saillant au milieu (épistome) en forme de rectangle légèrement infléchi, assez profondément sinué au milieu du bord antérieur; marges latérales fortement infléchies, surtout contre les yeux; ceux-ci un peu allongés, peu saillants, latéraux. Prothorax rétréci à la base, arqué sur les côtés, surtout dans la moitié basilaire, présentant sa plus grande largeur vers le premier tiers de la longueur à partir de la base, environ une fois et demie plus long que large dans cette plus grande largeur, subdéprimé sur le disque, couvert d'une ponctuation

plus fine que celle de la tête, plus ou moins éparses sur le disque, un peu plus forte vers les côtés, laissant au milieu un espace longitudinal lisse, très finement strié sur sa partie basilaire. Bord antérieur tronqué; angles antérieurs obtus, marges latérales fortement infléchies contre les angles antérieurs, lisses; bord latéral caché en avant lorsque l'insecte est vu de dessus; angles postérieurs à peine marqués, paraissant par suite fortement arrondis; base à peine arquée, finement rebordée aux extrémités; marge basilaire très brièvement infléchie, impressionnée de chaque côté contre l'angle postérieur. Ecusson subtriangulaire, très large et très transversal, à peine ponctué, transversalement substrié, à la base, de chaque côté. Elytres subsinués de chaque côté de l'écusson, arrondis aux épaules, alors à peu près aussi larges ensemble que le prothorax dans sa plus grande largeur, presque droite sur les côtés, très faiblement élargis vers l'extrémité, largement arrondis aux angles postérieurs-externes, subarqués séparément au sommet; environ une fois et demie plus longs que larges ensemble dans leur plus grande largeur, ponctués-striés; stries ponctués disparaissant, près de l'extrémité, dans une ponctuation très fine, confuse et très éparses; intervalles des stries plus larges sur le disque que les points. Marges latérales fortement infléchies dans la région des épaules et contre la base, moins fortement vers le sommet, et encore moins fortement sur la partie apicale. Segments dorsaux de l'abdomen progressivement plus fortement ponctués vers l'extrémité; le 1^{er} éparsément, le 2^{me} un peu moins éparsément, le dernier beaucoup plus densément. Dernier segment près d'une fois et un tiers plus long que large, subacuminé à l'extrémité, bordé à la base et sur les côtés, sauf sur la partie apicale, par une carène un peu obtuse, enfermant un espace transversalement subconvexe au milieu, concave contre les carènes. Dernier segment de l'abdomen rugueusement ponctué vers le sommet, tronqué chez le mâle.

LUZON, Laguna, Mont Maquiling (*Baker*), 1 exemplaire mâle, collection A. Grouvelle.

Amystrops monticola sp. nov.

Breviter oblongus, convexiusculus, nitidulus, tenue flavo-pubescent, fulvus; elytris infuscatis, circa scutellum paulo dilutioribus. Antennae fere breves; 1^o articulo subelongato, incrassato intus mediocriter rotundato-dilatato; clava piriformi, plus duplo longiore quam latiore, articulis vix densatis. Caput transversum, subdepressum, fronte dense punctulatum; epistomo trapeziformi, prope antennarum bases producto, transversim

subconvexo, subtiliter punctulato, basi utrinque juxta antennam impresso; oculis subprominulis, oris internis fortiter convergentibus. Prothorax antice fortiter, postice vix angustatus, lateribus mediocriter arcuatus, in maxima latitudine plus duplo latior quam longior, quam caput minus dense sed paulo validius punctulatus; margine antico medio vix emarginato; angulis anticis arcuato subproductis; lateribus anguste marginatis; angulis posticis subacutis, retrorsum productis; basi truncata, utrinque ante scutellum breviter sinuata, extremitatibus retrorsum arcuata. Scutellum triangulare, transversum dense punctulatum. Elytra rotundata, lateribus arcuata, vix ampliata, apicem versus attenuata, apice separatim oblique subtruncata minus longiora quam simul in maxima latitudine latiora, subdense et capite validius punctulata; punctis subasperis ad latera apicemque attenuatis. Pygidium convexiusculum, apice rotundato-acuminatum, dense subtiliterque punctulatum.

Longueur, 1.7 millimètres.

Oblong, environ une fois et demie plus long que large dans sa plus grande largeur, médiocrement convexe, brillant, couvert d'une pubescence flave très fine, roux fauve; élytres un peu rougeâtres, plus claires sur la région scutellaire. Antennes assez courtes; 1^{er} article un peu allongé, épais, dilaté, arrondi en dedans; 2^{me} encore épaissi, plus long que large; 3^{me} plus de deux fois plus long que large, un peu plus long que le 2^{me}; 4^{me} allongé; 5^{me} encore un peu plus allongé; 6^{me} et 7^{me} subtransversaux, 8^{me} transversal, amorçant la massue; celle-ci piriforme, un peu plus de deux fois plus longue que large, subégale au tiers de la longueur totale de l'antenne, dernier article presque aussi long que les deux premiers réunis, terminé par une partie conique. Tête environ deux fois plus large avec les yeux que longue, subdéprimée et densément pointillée sur le front; épistome saillant en forme de trapèze, presque contigu à la base aux naissances des antennes, transversalement subconvexe, tronqué au bord antérieur, très finement pointillé, séparé du front de chaque côté vers la base de l'antenne par une faible impression; labre bien visible, arrondi sur les côtés, échancré en triangle; tempes effacées; yeux médiocrement saillants, échançant à peine les marges du front, leurs bords internes très convergents. Prothorax faiblement convexe dans la longueur, fortement dans la largeur, assez fortement rétréci en avant, très faiblement à la base, arqué sur les côtés, présentant sa plus grande largeur très près de la base, un peu plus de deux fois plus large dans sa plus grande largeur que long, couvert d'une ponctuation faiblement rugueuse, un peu moins serrée et

un peu forte que celle de la tête. Bord antérieur largement et faiblement échancré, saillant légèrement en avant aux extrémités en forme de lobe arqué, par suite angles antérieurs arrondis; bords latéraux étroitement bordés; angles postérieurs aigus, saillants en arrière; base tronquée, arquée à l'arrière vers les extrémités, brièvement sinuée de chaque côté de l'écusson, bordée aux extrémités par le prolongement de la bordure des côtés. Ecusson triangulaire, environ deux fois plus large à la base que long, densément pointillé. Elytres subtronqués à la base, largement arrondis aux épaules, arqués sur les côtés, à peine élargis, présentant leur plus grande largeur près de la base, atténués séparément et un peu obliquement subtronqués au sommet, nettement plus courts que larges dans leur plus grande largeur, couverts d'une ponctuation nettement plus écartée et plus forte que celle du prothorax, subrugueuse, atténuée vers les marges latérales et apicales; ces dernières très finement rebordées. Pygidium subdéprimé, densément et finement pubescent; pygidium du mâle tronqué, complété par un segment supplémentaire.

LUZON, Laguna, Mont Maquiling (*Baker*), 1 exemplaire mâle, collection A. Grouvelle.

Carpophilus (Eidocolastus) subplanus sp. nov.

Breviter oblongus, fere planus, nitidus fere omnino glaber, rufo-testaceus; capite antennarum clava et scutello satis, prothorace abdomineque vix, infuscatis; elytris dilute ochraceo-testaceis. Antennae subbreves; clavae 1° articulo ab secundo disjuncto. Caput transversum, fronte sat convexum, dense punctulatum, utrinque ad antennae basin impressum; epistomo separatim convexiusculo, subtrapezoidali, antice truncato, lateribus fortiter sinuato; oculis subprominulis, oris internis convergentibus; temporibus haud manifestis. Prothorax transversim convexus, antice quam postice paulo magis angustatus, lateribus arcuatus juxta basin vix perspicue sinuatus, in maxima latitudine plus duplo latior quam longior, in disco quam caput minus dense valideque punctulatus, punctis ad latera densioribus validioribusque; margine antico subsinuato; angulis anticis obtusis; lateribus anguste marginatis; angulis posticis acutis; basi medio vix sinuata, utrinque subrecta, anguste marginata. Scutellum transversum, subtriangulare, lateribus juxta basin arcuatum, in disco subtiliter punctulatum. Elytra humeris angulosa, lateribus arcuata, vix perspicue ampliata, angulis apicalibus hebetata, apice separatim oblique subtruncata, disco depressa, dense et quam caput minus valde punctulata; punctis subasperis, ad

latera apicemque attenuatis. Pygidium convexiusculum, apice subacuminatum, crebre subrugoseque punctulatum.

Longueur, 2.5 millimètres.

Oblong, environ deux fois et un tiers plus long que large dans sa plus grande largeur, à peine convexe, brillant, glabre sur la tête, le prothorax et les élytres, à peine pubescent sur l'abdomen, roux testacé; tête, massue des antennes et écusson un peu enfumés; prothorax et abdomen encore moins enfumés; élytres testacé jaunâtre clair; suture, marges latérales et apicales très étroitement rembrunies. Antennes assez courtes; 1^{er} article épais, arqué, dilaté en dedans; 2^{me} encore épais, plus long que large; 3^{me} plus de trois fois plus long que large, 4^{me} et 5^{me} un peu allongés, 6^{me} et 7^{me} subtransversaux, 8^{me} transversal, amorçant légèrement la massue; celle-ci brusque, moins d'une fois et demie plus longue que large; 1^{er} article séparé du second. Tête un peu plus de deux fois plus large avec les yeux que longue, assez convexe sur le front, densément pointillée, impressionnée de chaque côté vers la naissance de l'antenne; épistome subtrapézoïdal, transversal, tronqué au bord antérieur, fortement sinué sur les côtés, légèrement convexe, séparé du front par une légère dépression arquée, s'étendant entre les impressions des bases des antennes; yeux médiocrement saillants, échancrant légèrement les marges latérales du front, leurs bords internes convergents; tempes effacées. Prothorax transversalement convexe, un peu plus rétréci au sommet qu'à la base, arqué sur les côtés, très brièvement subsinué contre la base, présentant sa plus grande largeur un peu après le milieu de la longueur, un peu plus de deux fois plus large dans sa plus grande largeur que long, moins densément ponctué sur le disque que la tête. Bord antérieur subsinué; angles antérieurs obtus; côtés bordés par un fin bourrelet et par une fine cannelure, encore plus étroite au sommet, s'arrêtant contre l'angle postérieur; celui-ci un peu aigu, très légèrement réfléchi en arrière; base subtronquée, brièvement et très faiblement arquée vers l'arrière aux extrémités, très étroitement rebordée. Marges latérales convexes; marge basilaire très brièvement infléchie contre la bordure marginale. Ecusson en forme de triangle curviligne à courbure très accentuée sur les côtés contre la base, plus de deux fois plus large à la base que long, très finement ponctué sur sa partie médiane. Elytres déprimés, subtronqués à la base, en angles un peu obtus aux épaules, arqués sur les côtés, à peine élargis, présentant leur plus grande largeur vers le premier tiers de la longueur à partir de la base, médiocrement atténués vers le sommet, émoussés aux angles apicaux externes, séparément et

un peu obliquement subtronqués au sommet, environ une fois et un sixième plus larges ensemble, dans leur plus grande largeur, que longs, densément ponctués, mais moins fortement que la tête: ponctuation subrugueuse, atténuée vers la base et vers le sommet. Marge basilaire fortement et très étroitement infléchie, très finement rebordée; marges latérales subpliées, bordées par un fin bourrelet et par une étroite cannelure; marge apicale très finement rebordée. Pygidium subconvexe subtriangulaire, presque acuminé au sommet, très densément et subrugueusement ponctué. Dessous du corps rougeâtre; abdomen densément pointillé.

MINDANAO, Zamboanga (*Baker*), 1 exemplaire femelle, collection A. Grouvelle.

Carpophilus sinuatus sp. nov.

Breviter oblongus, convexus, nitidus, glaber, piceus: antennis, praeter clayam, capitis anguste margine antico et prothoracis angulis posticis rufo-piceis. Antennae subelongatae; clavae 1° articulo ab secundo disjuncto. Caput transversum, fronte sat convexum, dense punctulatum, utrinque ad antennae basin tenuiter impressum; epistomo depresso, subtrapezoidali, antice truncato et angustissime inflexo, lateribus profunde sinuato et anguste inflexo, subtiliter punctulato; oculis vix prominulis, oris internis subsinuatis, convergentibus; temporibus haud manifestis. Prothorax in longitudinem vix transversim, sat fortiter convexus, antice satis, postice vix perpicue, angustatus, lateribus antice arcuatus, postice subparallelus, circiter in maxima latitudine duplo latior quam longior, in disco quam caput minus dense, sed paulo fortius punctatus, punctis ad latera densioribus et minoribus; margine antico emarginato; angulis anticis obtusis, antrorsum productis; lateribus subtiliter marginatis; angulis posticis acutis, retrorsum productis, basi medio vix utrinque paulo magis sinuata. Scutellum transversum, subtriangulare; lateribus juxta basin arcuatis; disco subtilissime punctulato. Elytra humeris angulosa, lateribus arcuata, subampliata, angulis posticis hebetato-obtusa, apice separatim oblique truncata, in maxima latitudine latiora quam longiora, fere sicut caput punctata; marginibus lateralibus breviter fortiterque inflexis, anguste marginatis. Pygidium convexiusculum, apice subacuminatum, crebre subrugoseque punctulatum.

Longueur, 2.2 millimètres.

Oblong, un peu plus de deux fois plus long que large dans sa plus grande largeur, convexe, brillant, glabre, brun de poix; prothorax, écusson et extrême marge apicale des élytres à peine

plus claire; antennes sauf la massue et bord antérieur de la tête roux teinté de couleur de poix. Antennes médiocrement courtes; 1^{er} article épais, arqué, dilaté en dedans; 2^{me} encore épais, un peu plus long que large; 3^{me} environ deux fois plus long que large, plus long que le 2^{me}, 4^{me} et 5^{me} subcarrés, 6^{me} et 7^{me} transversaux, 8^{me} très transversal, amorçant faiblement la massue; celle-ci brusque, environ une fois et demie plus longue que large; 1^{er} article séparé du 2^{me}, 3^{me} plus étroit que le 2^{me}. Tête relativement large, un peu plus de deux fois plus large avec les yeux que longue, convexe sur le front, densément pointillée, faiblement impressionnée de chaque côté vers la naissance de l'antenne; épistome subtrapézoïdal, transversal, assez saillant, déprimé fortement et brièvement infléchi en avant et sur les côtés, tronqué au bord antérieur, profondément sinué sur les côtés, très finement pointillé; yeux assez gros, peu saillants, échancrant légèrement les marges latérales du front; leurs bords internes convergents; tempes effacées, bord basilaire de la tête, de chaque côté du cou, oblique. Prothorax faiblement convexe dans la longueur, surtout vers les marges latérales, rétréci en avant, à peine visiblement à la base, arqué en avant sur les côtés, subparallèle dans la partie basilaire, un peu plus de deux fois plus large dans cette partie que long, moins densément, mais plus fortement ponctué sur le disque que la tête; ponctuation un peu plus serrée et plus fine sur les côtés, laissant libre sur le disque un espace longitudinal, court et étroit. Bord antérieur largement et peu profondément échancré, brièvement et très fortement infléchi aux extrémités; angles antérieurs obtus, un peu saillants en avant; marges latérales brièvement et fortement infléchies, finement bordées; angles postérieurs aigus, saillants en arrière, assez largement subdéprimés sur leur région apicale; base faiblement sinuée au milieu, plus fortement de chaque côté, surtout vers les extrémités, finement rebordée. Ecusson subtriangulaire, environ deux fois plus large à la base que long, arrondi sur les côtés contre la base, très finement ponctué sur le milieu. Elytres subtronqués à la base, arqués aux extrémités, en angles obtus aux épaules, arqués, un peu élargis sur les côtés, présentant leur plus grande largeur vers le premier tiers de la longueur à partir de la base, en angle obtus émoussé aux angles apicaux externes, obliquement et séparément tronqués au sommet, presque une fois et demie plus larges dans leur plus grande largeur que longs, ponctués comme la tête, mais moins densément; points atténués et plus serrés vers le sommet; intervalles des points à peine visiblement chagrinés, un peu plus visiblement sur la marge apicale. Marges latérales for-

tement infléchies surtout au-dessous du calus huméral, bordées par un très fin bourrelet et par une cannelure beaucoup plus large. Pygidium subconvexe, subtriangulaire, transversal, presque acuminé à l'extrémité, très densément et subrugueusement ponctué. Dessous du corps roux de poix, pattes plus claires.

PALAWAN, Puerto Princesa (*Baker*), 1 exemplaire, collection A. Grouvelle.

Prometopia bakeri sp. nov.

Subparallela, paulo plus duplo longior quam latior, convexa, nitidula, setis vix incrassatis, subbrevibus, flavo-albidis, inclinatis subparce vestita, pilis multo tenuioribus intermixtis; capite prothoraceque rufo-fuscis, elytris nigris, singulo rufo bimaculato; 1° macula discoidali, ad longitudinis primum trientem, oblonga, obliqua; 2° discoidali, ad longitudinis ultimum quadrantem, suborbiculari. Antennae subelongatae; clava piriformi plus duplo longiore quam latiore. Caput transversum fronte convexiusculum et subdense granulatum; epistomo subdepresso, antice truncato; labro transversissimo, antice rotundato; oculis sat prominulis, granis sat validis. Prothorax lateribus modicissime arcuatus, suparallelus, antice aliquid angustatus et capite paulo latior, in maxima latitudine paulo plus duplo latior quam longior, punctis ocellatis, ad latera magis validis plus minusve parce punctatus, margine antico late marginato; angulis anticis acutis antrorsum productis, lateribus anguste marginatis; angulis posticis subrectis; basi ante scutellum truncata, utrinque sinuata, extremitatibus retrorsum producta, angustissime marginata. Scutellum subtriangulare, transversissimum. Elytra basi sat longe parallela, apice conjunctim rotundata, circiter 1 et $\frac{1}{2}$ longiora quam simul basi latiora, dense subrugoseque punctata; punctis ad apicem attenuatis, lateribus striate rufo-marginatis.

Longueur, 3.5 millimètres.

Presque parallèle, faiblement atténué vers l'arrière, un peu plus de deux fois plus long que large dans sa plus grande largeur; médiocrement convexe dans la longueur, plus fortement dans la largeur, assez brillant, couvert d'une vestiture compré-
nant: 1° des poils squamiformes, assez courts, inclinés, flave blanchâtre plus ou moins un peu écartés; 2° des poils petits, très fins, un peu plus foncés, plus serrés que les premiers; couleur noir très faiblement rougeâtre sur la tête et le pronotum; antennes et extrêmes marges latérales du prothorax et des élytres et dessous du corps roux testacé; sur chaque élytre deux tâches rouges: la 1^{re} discoidale, après le premier tiers de la longueur à partir de la base, oblongue, inclinée vers l'extré-

mité, la 2^{me} également sur le disque, vers le dernier quart de la longueur, suborbiculaire. Antennes un peu allongées; 1^{er} article épais, un peu plus long que large, dilaté arrondi en dedans; 2^{me} encore un peu épais, suballongé; 3^{me} à peine épaissi, environ quatre fois plus long que large, 4^{me} à peine allongé, 5^{me} et 6^{me} subcarrés, 7^{me} et 8^{me} progressivement à peine épaissis, à peine allongés; 9^{me} et 11^{me} formant une massue subpiriforme, légèrement dissymétrique, moins d'une fois et demie plus large que longue, dont le dernier article plus étroit que le précédent est terminé par une partie émoussée. Tête moins de deux fois plus large avec les yeux que longue, légèrement convexe, sur le disque du front, étroitement infléchi de chaque côté, au dessus des yeux, contre l'épistome en arc saillant en avant, celui-ci subdéprimé, trapézoïdal, assez saillant en avant des bases des antennes, tronqué au bord antérieur; front couvert de granulations peu serrées et peu marquées, très finement striées-entourées, devenant plus faibles sur l'épistome. Yeux latéraux, saillants presque en forme de demi circonférence, plus fortement arrondis en avant qu'en arrière; facettes assez fortes. Mandibules saillantes; labre très transversal, arrondi, un peu infléchi en avant, subrugueux. Prothorax à peine convexe dans la longueur, plus fortement dans la largeur, subparallèle, arqué, un peu rétréci en avant, à peine plus de deux fois plus large à la base que long, couvert de points superficiels, ocellés, petits et espacés sur le disque, plus forts, plus serrés et subrugueux sur les marges latérales; intervalles très finement et peu densément pointillés. Bord antérieur largement échancré, légèrement arqué en avant au milieu, très étroitement rebordé aux extrémités; angles antérieurs aigus, saillants en avant; côtés bordés par un fin bourrelet et par une cannelure très étroite à la base, un peu plus large vers l'avant s'étendant sur l'angle antérieur; angles postérieurs presque droits, émoussés; base tronquée devant l'écusson, largement sinuée, légèrement infléchi vers l'arrière de chaque côté, étroitement rebordée, striée. Ecusson subtriangulaire, très transversal, légèrement enfoncé, pointillé à la base. Elytres arqués à la base en angles obtus aux épaumes, subparallèles, assez longuement atténués vers le sommet, brièvement arrondis ensemble, environ une fois et un tiers plus longs que larges ensemble, densément et subrugueusement ponctués; points atténués vers le sommet; marges latérales étroitement bordées par un fin bourrelet et par une fine cannelure qui s'atteignent vers le sommet.

LUZON, Laguna, Mont Maquiling (*Baker*), 1 exemplaire mâle, collection A. Grouvelle.

THE CARPENTER BEES OF THE PHILIPPINE ISLANDS

By T. D. A. COCKERELL

(University of Colorado, Boulder)

The carpenter bees (Xylocopidæ), so-called because they nest in wood, are easily recognized by their large size and robust form; the wings are often brilliantly iridescent. They are commonly seen about houses. Two genera may be recognized, *Mesotrichia* Westwood and *Xylocopa* Latreille. *Koptorthosoma* Gribodo, *Platynopoda* Westwood, and *Cyaneoderes* Ashmead are here regarded as divisions of *Mesotrichia*. In *Mesotrichia* the hind part of the thorax is flattened (at least in the females), the scutellum having a sharp rim, and this posterior thoracic truncation faces a similar basal truncation of the abdomen. The basal segment of the abdomen contains a pouch, which opens on the anterior face, and in this pouch will be found mites of the genus *Paragreenia* Cockerell (family Gamasidæ). In true *Xylocopa* the hind part of the thorax is rounded as in other bees, and the first abdominal segment also lacks a sharp or angular rim above its basal declivity.

For my Philippine material of this group I am indebted to Professor C. F. Baker. It was principally collected for him by Mr. Julian Valdez, who visited many of the islands for the purpose.

Genus XYLOCOPA Latreille

Species.

*a*¹. Face of male narrow, the area below antennæ about as broad as long; sexes differently colored, the male with a good deal of olive-brown hair, the female black, with the abdomen dark green.

fuliginata Pérez.

*a*². Face of male broad, the area below antennæ much broader than long.

*b*¹. Wings brilliant rosy purple, with the apical field peacock green; anterior wing of female 28 millimeters long; abdomen black, without green tints (China)..... *dissimilis* Lep.

*b*². Wings otherwise colored, not so brilliant.

*c*¹. Abdomen black; male with only a small part of clypeus (band at upper end) light *mimetica* Ckll.

*c*². Abdomen distinctly greenish; male with larger part of clypeus pale. *fallax* Maidl.

Xylocopa fuliginata Pérez, 1901.

MINDANAO, Dapitan, Iligan, and Davao (*Baker*); BASILAN (*Baker*); LUZON, Benguet, Baguio, and Laguna, Mount Maquiling (*Baker*). Probably the commonest species in the Philippines. Pérez described it from Mindanao and Palawan; the former is to be considered the type locality.

Xylocopa mimetica Cockerell, 1915.

PALAWAN.

Xylocopa fallax Maidl, 1912.

LUZON, Benguet, Baguio (*Baker*), 2 males.

The three following species of *Xylocopa* have not been seen from the Philippines by me, and their presence there, though reported, requires confirmation:

Xylocopa dissimilis Lepeletier, 1841.

Probably the Philippines supposed *dissimilis* was *fallax*.

Xylocopa tranquebarica (Fabricus), 1804.

This is more generally known as *X. rufescens* Smith. It is a large ferruginous insect, quite unlike anything I have seen from the Philippines. It has the curious habit of flying at night.

Xylocopa sonorina Smith, 1874.

Sunda Island; probably not in the Philippines. The female has the pubescence all black, except on anterior tarsi beneath, where it is ferruginous; wings fuscohyaline, with darker cloud beyond cells, and with bright purple and coppery iridescence.

Genus **MESOTRICHIA** Westwood*Species.*

- α^1 . Thorax covered with bright yellow hair above, abdomen black, wings very dark (Sumatra, etc.) *confusa* Pérez, ♀.
- α^2 . Thorax with fox-red hair above (with some black), abdomen black. *cuernosensis* Ckll.
- α^3 . Thorax and abdomen covered with greenish or tawny hair.
 - b^1 . Hair of thorax yellowish; anterior wing a little over 17 millimeters. *bakeriana* Ckll., ♂.
 - b^2 . Hair of thorax green or greenish.
 - c^1 . Anterior wing about 20 millimeters..... *euchlora* Pérez, ♂.
 - c^2 . Anterior wing about 23 millimeters; very large, robust insect. *major* Maidl, ♂.
- α^4 . Thorax with at least the disk dark, abdomen with not more than first segment covered with light hair.
 - d^1 . Thorax with a yellow band in front and behind and first abdominal segment yellow-haired *ghilianii* Gribodo.

- d². Thorax with a yellow band behind and first abdominal segment yellow; a smaller species than the last. *philippinensis chlorina* Ckll.
- d³. Much like the last, but thorax with two patches instead of a band posteriorly; wings dark rosy purple (green in *chlorina*).
philippinensis Smith.
- α². Thorax dark above; first abdominal segment without light hair.
- e¹. Very large, anterior wing over 25 millimeters.
- f¹. Scape enlarged at end.
- g¹. Wings brilliant green, brassy apically, purple at extreme base; male with anterior legs greatly modified..... *latipes* (Drury).
- g². Wings purple..... *latipes basioptera* Ckll.
- f². Scape not enlarged at end; scutellum hairy (nude in *latipes*).
bombiformis Smith.
- e². Much smaller, anterior wing not nearly 25 millimeters long.
- h¹. Small species; anterior wing about 14 millimeters long; wings brassy *dapitanensis* Ckll.
- h². Much larger.
- i¹. Wings brassy and coppery..... *bakeriana* Ckll., ♀.
- i². Wings green and purplish..... *amauroptera* Pérez.

The species tabulated are before me. I include some particulars in the following list concerning species that I do not possess:

Mesotrichia adusta (Pérez), 1901.

Female. Mindanao. Like *M. nobilis* as to size, and anterior and posterior borders of thorax yellow, but abdomen all black. In *M. nobilis*, *adusta*, and *occipitalis* the abdomen is very hairy, the surface being more or less completely covered. In *M. ghilianii*, which has similar yellow markings, the abdomen is less hairy, so that the surface is visible.

Mesotrichia amauroptera (Pérez), 1901.

PALAWAN, Puerto Princesa (*Baker*), 1 female.

Mesotrichia bakeriana Cockerell, 1914.

LUZON, Laguna, Los Baños, and Mount Maquiling (*Baker*), females. What I suppose to be the male comes from Mount Maquiling; it resembles *M. euchlora*, but is smaller and more tawny, not distinctly green.

Mesotrichia bombiformis (Smith), 1874.

LUZON, Benguet, Baguio; Laguna, Los Baños and Mount Maquiling (*Baker*). A large black insect; the wings purple, apically dark greenish. The hairy scutellum at once distinguishes it from *M. latipes*.

Mesotrichia clavicus (Maidl), 1912.

Luzon and Ceylon, according to Maidl. Male near *volatilis* Smith; hind femora extremely broad. Clypeus reddish yellow.

Mesotrichia confusa (Pérez), 1901.

Reported as *aestuans* (which is African) and *bryorum* (which is Australian). It occurs in Java, Sumatra, etc.; I have no Philippine specimens.

Mesotrichia cuernosensis Cockerell, 1915.

NEGROS (*Baker*).

Mesotrichia dapitanensis Cockerell, 1915.

MINDANAO (*Baker*).

Mesotrichia euchlora (Pérez), 1901.

MINDANAO, Dapitan and Zamboanga (*Baker*), males. Maidl suggests that this is the male of *M. philippinensis*, which seems very probable.

Mesotrichia ghilianii (Gribodo), 1891.

MINDANAO, Iligan (*Baker*).

Mesotrichia major (Maidl), 1912.

LUZON, Tayabas, Malinao (*Baker*). Only the male known.

The type was collected in the Philippines by von Schadenberg in 1890.

Mesotrichia occipitalis (Pérez), 1901.

Female. Mindanao. Differs from *M. adusta* by yellow collar on prothorax, hair of abdomen black, etc.

Mesotrichia philippinensis (Smith), 1854.

LUZON, Tayabas, Malinao (*Baker*).

Mesotrichia philippinensis bilineata (Fries), 1914.

Female. Luzon. Smaller, pleura black-haired, hind margin of thorax with broader, yellower hair band. Length, 15 millimeters. Is this not a distinct species? I have not seen it.

Mesotrichia philippinensis chlorina Cockerell, 1915.

The common form at Los Baños, Luzon.

Mesotrichia sulcifrons (Pérez), 1901.

Female. Palawan. Length, 15 to 16 millimeters; allied to *amauroptera*. Wings only a little reddened, semitransparent. Hair of clypeus black.

Mesotrichia tricolor (Ritsema), 1876.

A species allied to *nobilis*, 27 millimeters long, from the Sula Islands. Its occurrence in the Philippines needs confirmation.

Mesotrichia trifasciata (Gribodo), 1891.

Female, 21 to 22 millimeters long. Mindanao. Very close to *M. nigroplagiata*, but head densely gray-haired. The first abdominal segment is densely yellow-haired.

Mesotrichia vachali (Pérez), 1901.

Male from Palawan. Very near to *M. confusa*; the yellow hair of thorax tinted with red; on abdomen the tint is olivaceous, becoming dusky from the admixture of black hairs. This also is related to *M. euchlora*.

Subgenus *Platynopoda* Westwood

Mesotrichia latipes (Drury), 1773.

NEGROS, Cuernos Mountains (*Baker*), 1 female.

Mesotrichia latipes basilopectera subsp. nov.

Female.—Length, about 28 millimeters; anterior wing, 28; wings very dark, splendid deep purple, the basal half with some bluish green tints. Scape broadened at end; lateral frontal basins extending above lateral ocelli.

PALAWAN, Puerto Princesa (*Baker*, 6298).

Mesotrichia tenuiscapa (Westwood), 1840.

Differs by the simple scape of antennæ, not distinctly enlarged at end. It occurs in India, and I have not seen Philippine specimens.

A NEW PHILIPPINE GENUS OF DELPHACIDÆ

By FREDERICK MUIR

(Honolulu, Hawaii)

Genus **VIZCAYA** novum

Head narrower than thorax; vertex longer than broad (1.70 to 1), base slightly wider than apex, mediolateral carinæ meeting well before the apex, Y-shaped carina obsolete, length of face nearly two and one-half times the width at apex (1 to 2.4), apex wider than base, sides nearly straight, lateral carinæ distinct, a single median carina faint on apical half and obsolete on basal half, a distinct carina across gena from base of antenna to the lateral corner of base of clypeus; clypeus shorter than face, tricarinate; head in profile rounded at junction of vertex and face. Antennæ nearly twice the length of head and pro- and mesothorax together, second joint more than one half longer than first (1.6 to 1), first joint flattened, wide, thin, second joint terete, evenly covered with raised sense organs and short spines. Hind margin of pronotum slightly and evenly emarginate, carinæ obsolete; mesonotum with three very fine carinæ. Legs long and slender, hind tibiæ with one basal, one medio-apical, and five apical spines; hind tarsi not quite half the length of tibia, basal joint longer than the other two together (1 to .70), spur not as long as the basal joint, cultrate, convex on both sides, seven teeth on hind margin and one at the apex. Tegmen long, narrow, median vein not touching the radius.

This is a very distinct genus belonging to the Alohini and coming nearest to *Proterosydne*. It has some affinity, at least superficially, to *Lanaphora* of the Tropidocephalini.

Vizcaya bakeri sp. nov.

Male.—Orange or ochraceous orange; vertex (except a triangular patch at each corner of base), base of face, and base of clypeus shiny black, antennæ dark brown, second joint darkest, tarsi fuscous, abdomen dark brown or black. Costal area to near apex and basal third of tegmen hyaline, rest of tegmen dark fuscous, darkest over apical third and fading toward base, veins concolorous with membrane, very fine granules bearing fine black hairs.

Anal segment larger, longer than wide, lateral edges turned ventrad forming a trough on ventral side, anus about middle; lateral edges of pygofer angularly produced halfway along anal segment; medioventral edge produced into two short, horizontally flattened, blunt spines; styles broadest at base, gradually narrowed to apex, flattened, forming a half spiral inward.

Length, 3.9 millimeters; tegmen, 4.6.

Female.—Similar to the male.

Length, 5 millimeters; tegmen, 5.4.

LUZON, Nueva Vizcaya Province, Imugan (*C. F. Baker*).
Cotype in Bureau of Science collection. This interesting delphacid is named for Prof. C. F. Baker.